RHODESIA

REPORT

of

THE SECRETARY FOR HEALTH

for the Year ended 31st December, 1964

Presented to the Legislative Assembly
1965

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Report of the Secretary for Health for the year ended 31st December, 1964

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THE HON. THE MINISTER OF HEALTH.

Sir,

I have the honour to submit the annual report on the Ministry of Health of Rhodesia for the year ending 31st December, 1964.

I have the honour to be,

Sir,

Your obedient servant,

M. H. WEBSTER,
Secretary to the Ministry of Health.

30th April, 1965.

INTRODUCTION

This report, in fact, covers a period of 13 months in view of the fact that responsibility for health services was returned to the Government of Rhodesia from the Government of the Federation of Rhodesia and Nyasaland on the 1st December, 1963, one month prior to the actual dissolution of the Federation.

At that dissolution many gloomy predictions were voiced regarding the effect of the dissolution on Rhodesia generally, and on its social services in particular. Some of the gloomiest of these prophets foresaw the rapid degeneration of the health services of the country. That the Rhodesia Government was faced with formidable difficulties in maintaining these services there was no doubt. There were, as will be seen later in this report, considerable losses of staff in professional grades at the time of dissolution, as always happens when it is made financially more profitable to leave a service than to remain in it, and when political and constitutional uncertainties cause restlessness among a group of people whose services are in such world-wide demand that they need have no fear of seeking employment elsewhere. On the other hand, there were some notable gains in respect of senior medical staff who migrated south from Northern Rhodesia (now Zambia) and Nyasaland (now Malawi), at the time of dissolution. Some of these were of Southern Rhodesian origin and were returning "home", but others preferred the prospect of service in Rhodesia to that of further service in the northern territories of the erstwhile Federation. To those officers who joined us and made a notable contribution to the continuance of the medical service at a high standard, and particularly to those officers who remained loyally at their posts and have done so in the ensuing 13 months, Rhodesia has good cause to be very grateful indeed. The result of the loyal and strenuous efforts of the staff of the Ministry has been that the prophets of doom referred to above have been shown, so far, to be false prophets, and, entering the second year of operations of the Ministry of Health of Rhodesia, we face the future with confidence. At this

juncture it is fitting to acknowledge that, in facing the problems of the take-over, this Ministry was greatly assisted by the enlightened and helpful attitude of the Chairman, members and staff of the Public Services Board, to whom we are sincerely grateful.

It is, however, necessary to emphasize at this point that our difficulties are far from being resolved. A considerable number of professional and technical staff who transferred to the service of Rhodesia at dissolution, did so on the basis of provisional transfer and may, therefore, still be lost to us at any time after the 31st December, 1965. The risks of this happening have not been reduced by the fact that, since taking over responsibility for health services in this country, this Ministry has been somewhat severely restricted as regards funds with which to finance the services it is called upon to supply. In order to keep within the authorized expenditure it has been necessary to restrict, and, indeed, in certain directions to reduce the quantity, but not the quality, of the services provided in the past, either free or at very low cost to the public, and it has been necessary to consider these last 13 months as a period of holding the position rather than of expansion or advance. This, however, cannot go on. It must be appreciated that the work of a Ministry such as this must advance, must expand, if highly qualified personnel are to be attracted to the service and induced to remain in it. It is extremely frustrating for a doctor to know what should be done to tackle either a clinical case or a health situation, but to be unable to do so to his own full satisfaction because of lack of the money and materials required. This situation has undoubtedly been borne philosophically by the staff of this Ministry from time to time, but it is now essential that, without extravagance and without laying claim to any disproportionate share of the moneys available to Government, this Ministry should be able to look ahead and to plan to keep pace with the advancement of medical science and be able to offer to its professional and technical staff full opportunities for the development of their skills and knowledge.

It is relevant at this juncture to point out that Rhodesia today provides a health service second to none in Africa, at a cost of a little more than £1 per head of total population per annum. It is also relevant to note that of the total sum expended on health services during the year, less than 55 per cent. is accounted for by salaries and allowances payable to staff. This is in sharp contrast to the situation elsewhere where, for example in the United Kingdom, of the £1,000,000,000 (£20 per annum per head of population) which the health service costs the taxpayer annually, over $66\frac{2}{3}$ per cent. is spent on emoluments. That the salary bill in this Ministry is relatively light is due to a number of factors, the most important of which are that medical and nursing staff in this country work harder than they do in many other countries and are of a high level of efficiency. These are matters of which Rhodesia can be proud. It is less easy to be proud of the fact that some categories of our professional and technical staff are inadequately rewarded for their work by present grades of emoluments. This matter is, however, under review and it is hoped that improvements, particularly affecting the pay of our overworked and frequently harassed nursing staff, will be forthcoming during next year.

It is perhaps appropriate, however, to take stock of the present situation of the health services in this country. These can be divided, and are perhaps too sharply divided, into curative services and preventive services. A frequent but

often misleading yardstick used to measure the level of curative services is the number of hospital beds available per thousand of population. In this respect, of course, Rhodesia is better provided for than any other country in Africa south of the Sahara, other than the Republic of South Africa. There are 4.25 hospital beds per thousand of the total population of Rhodesia. Divided on the basis of beds available for different sections of the community the figures are as follows:

European beds . . .	6.7 per thousand
Coloured and Asian beds .	10.0 per thousand
African beds . . .	3.7 per thousand

However, the efficient usage of hospital beds depends on the diagnostic and treatment facilities which go with them, and in this respect some of our hospitals are lacking to a greater or lesser degree. Furthermore, many of the beds are housed in buildings which are unsuitable as hospital buildings in this day and age, are difficult to maintain and are far from being conducive to labour saving. Future planning on this side of the service should be directed not to expansion in the number of beds available, but rather to improving the standard of the buildings in which these beds are housed and of the facilities which go with them. Such improvements might, in fact, in time reduce the number of beds required by achieving a higher turn-over rate of patients.

Another flaw in the present provision of hospital facilities is found in the distribution of these facilities. There are areas of the country very well served indeed; there are others where medical facilities are negligible or entirely lacking. The provision of at least basic facilities to provide timely medical and surgical "first aid" is a matter to which urgent consideration must be given. The nature of the expansion of medical services in rural areas will be discussed below and is a matter which is intimately connected with the philosophy and practice of community development.

As regards preventive services, it is a matter of some concern to me that of the total health budget less than 10 per cent. is spent on the preventive services, which means that a very large sum of money indeed is spent on the treatment of preventable disease. It should, therefore, be the endeavour of this Ministry in the years ahead to redress this balance and to expand preventive health services, particularly in rural areas where so much can be done so cheaply to eliminate the costly results of disease which can either be prevented or which will respond to simple, cheap and effective treatment if given early.

In certain special sectors of preventive health work this country has a considerable reputation for its achievements. The work of the Bilharzia Research Organization is described in detail later in this report. Our efforts towards the eradication of tuberculosis are attracting increasing attention from other countries faced with this serious public health problem. The future policy as regards the prevention of malaria and the advance towards eradication of the disease with the assistance of the World Health Organisation will be described below.

It is noted that in the introductory section of his last report on the Public Health of the Federation of Rhodesia and Nyasaland the Secretary to the Federal Ministry of Health made mention of the Salisbury medical school and teaching hospital. It is perhaps appropriate, therefore, to outline here the events relating to this institution which have occurred in the last 13 months.

It is important to remember that this medical school was established with a view to serving the three territories of the then Federation, although the measures taken to establish it were pursued at a time when the death of the Federation was obviously inevitable. It was apparent that neither Zambia nor Malawi would be interested in continuing to give support to an institution which would give status to Rhodesia, but none to these territories themselves, and indeed this was made very clear even before the final dissolution of the Federation took place. It was, therefore, of considerable importance to Rhodesia that the responsibility for the continued life of the medical school and its further development, and indeed of the University College of Rhodesia and Nyasaland itself, should be placed firmly where it belonged, namely with the British Government, whose actions had been responsible for the demise of the parent of this institution—the Federal Government. The fact that this medical school was situated in Southern Rhodesia had to be accepted, but the importance of this fact could not be allowed to be exaggerated. Above all it was important that, should the medical school become defunct, the blame for this should not be placed unjustly on Southern Rhodesia. This was the basis of the Rhodesia Government's stand in negotiations which took place during 1964 with the British Government regarding the future of the medical school and teaching hospital and of the University College itself.

As a result of these negotiations an agreement was reached to the effect that Rhodesia would *assume* responsibility for the maintenance of the college and the maintenance and development of the medical school and teaching hospital on the lines previously determined and agreed between the Federal Government, the University of Birmingham and the college itself, provided that the British Government would make substantial contributions to the capital costs of the medical school and teaching hospital and to the running costs of the medical school as distinct from the teaching hospital. In the light of this agreement a draft bill to establish a board of governors for the teaching hospital has been prepared and should be presented to Parliament during the ensuing year.

The importance of these developments to Rhodesia cannot be over-emphasized. The world is competing for doctors, and recruitment from outside our borders cannot provide even a fraction of our medical needs. The need for our own medical school is, therefore, unquestionable. Furthermore, medical education in other countries does not prepare a doctor for practice in this part of Africa, and the advantages of a doctor learning his profession in the environment in which he will in future practise it are obvious.

It is equally important that any medical degree granted in Rhodesia should have universal recognition. This would not be true of a local degree unsupported by an established medical school. The fact that the well-established and renowned medical school of the University of Birmingham have agreed to grant their degrees to graduates from the Rhodesian medical school must be looked on by Rhodesians as a great good fortune, but one which can only be deserved and maintained provided that the standards we adopt and keep in the training of our medical students are at a level acceptable to a medical school of Birmingham's high reputation.

It should be noted, also, that one of the conditions attached to the grant of Birmingham degrees is the provision within the next few years of a properly

planned and staffed teaching hospital on the University campus in juxtaposition to and interdigitated with the medical school itself.

A legislative measure of paramount importance to the future development of Rhodesia's health services was taken during the year. The Public Health Act has, since it was first enacted, provided for the existence of an Advisory Board of Public Health consisting of the Minister, "the Chief Medical Officer" and three members, two of whom shall be medical practitioners, etc. This Board had never been appointed in terms of the Act either by the Federal Government or by the previous Southern Rhodesian Governments, although from time to time *ad hoc* bodies had existed appointed by the Minister of the time. It was felt that the Advisory Board should be established officially and should function as envisaged, *viz.* to advise the Minister on all matters relating to the public health. However, it was apparent that as envisaged in the existing Act the Board was not representative enough to carry out its functions properly. A Public Health Amendment Act was therefore presented and enacted which has the effect of reconstituting the Advisory Board of Public Health with a Chairman, a Deputy Chairman and 16 other members, one of whom is the Secretary for Health, *ex officio.*

This Board will be appointed early in 1965 and will commence to function as a live body considering all aspects of public health policy. For special purposes the Board is empowered to set up committees so that participation in matters affecting the public health will be possible for a greater number of our citizens than is indicated by the membership of the Board itself.

CHAPTER I

VITAL STATISTICS

The most noteworthy event in relation to population statistics during the year under review has been the appearance, for the first time, of the numbers of births and deaths registered among the African population. These figures are, of course, far from being complete, but they do serve for the first time to indicate trends as regards causes of deaths and infant deaths in this major section of the population and to give some idea of birth- and death-rates in the urban areas to which the legislation applies.

The mid-year population of Rhodesia was as follows—figures for 1963 are shown in brackets:

Europeans	217,000	(224,000)
Asians and Coloured persons	19,900	(19,200)
Africans	3,900,000	(3,770,000)
TOTAL	4,140,000	(4,010,000)

Thus the African population has again shown a marked increase (130,000) at the progressive rate which has been apparent for some years while, in spite of a natural increase of 12.5 per thousand the European population fell by 7,000 indicating a loss by emigration of some 9,700 people.

In a country where the economy, and therefore the financial support for social services depends on a minority, a shrinkage in that minority together with an unchecked increase in the majority group who look for but do not directly finance these services to any significant degree is a somewhat disquieting feature.

Any flattening of the growth curve of the African population is unlikely to occur until Africans are in a position to appreciate the value of family planning. They are unlikely to gain any appreciation of this until two prerequisites are achieved:

(a) The African population has achieved an economic status such as to make any kind of planned family economy worthwhile.

(b) Economic pressures, arising from the imposed need to subscribe to the cost of social services, are applied.

Summarized vital statistics for the year are as follows:

	European	*Asian*	*Coloured*	*African*
Estimated mid-year population	217,000	7,800	12,100	3,900,000
Rate of natural increase per 1,000 population	12.5	26.4	‡	(a)
Number of births registered*	4,017	277	461	6,074
Illegitimate births registered included above*	24	5	89	583
Annual birth-rate per 1,000 population	18.5	35.5	‡	(a)
Number of registered deaths	1,306	71	82	8,137
Annual death-rate per 1,000 population	6.0	9.1	6.8	(a)
Number of registered infant deaths	65	15	19	(b) 2,616
Registered infant mortality rate per 1,000 live births	16.2	54.2	‡	(a)
Registered still-births (not included in births and deaths)†	33	7	11	1,105
Number of maternal deaths	3	—	1	116

Notes — (a) Not calculable as it is known that not all African births and deaths are registered.
(b) Deaths of children whose age was stated as "piccanin" have not been included in this figure.

* In addition to the figures given, 625 births were registered where the race of the father was unknown, the race of these children is therefore also unknown and they are also illegitimate.

† In addition to the figures given, 54 still births were registered where the race of the father was unknown; the race of these still births is therefore also unknown.

‡ Not calculated as these births are not necessarily born to the Coloured population.

The following table shows the trend as regards birth rates, crude death-rates and infant mortality rates among the European population during the past two decades:

Year	*Birth rates per 1,000 population*	*Crude death-rates per 1,000 population*	*Infant mortality per 1,000 live births*
1964	18.5	6.0	16
1954	26.6	6.8	29
1944	24.5	8.9	45

The progressive fall in the death-rate and, particularly in the infant death-rate, is to be expected with improving medical services and is satisfactory. The fall in the European birth-rate over the last 10 years is not only puzzling, but is also to be deprecated. As the following table shows, in spite of having a relatively young population with a large percentage in the child-producing age groups we now have a birth-rate no greater than that of the United Kingdom. There are two obvious explanations—the selective emigration of the younger adult population and the effect of economic pressures forcing Rhodesians, who have been proverbially prolific in the past, to limit their families. Perhaps we should also once again draw attention to the factor of the working mother in this context.

The following tables give comparisons between crude death-rates and infant mortality in this country, Zambia, the United Kingdom and the Republic of South Africa.

BIRTH RATES PER 1,000 EUROPEAN POPULATION

Country	*1964*	*1954*	*1944*
Rhodesia	18.5	26.6	24.5
Zambia	22.1	31.8	30.5
England and Wales	18.4	15.2	17.7
Republic of South Africa	24.0	24.6	26.6

CRUDE DEATH-RATES PER 1,000 EUROPEAN POPULATION

Country	*1964*	*1954*	*1944*
Rhodesia	6.0	6.8	8.9
Zambia	4.2	4.8	8.4
England and Wales	11.3	11.3	11.6
Republic of South Africa	9.0	8.6	9.3

INFANT MORTALITY RATE PER 1,000 LIVE EUROPEAN BIRTHS

Country	*1964*	*1954*	*1944*
Rhodesia	16	29	41
Zambia	26	34	43
England and Wales	20	25	45
Republic of South Africa	34	33	42

The tables showing the causes of registered infant deaths and of deaths at all ages (which follow) include, for the first time, figures relative to the African population. It must, of course, be emphasized that the great majority of African deaths and births are not registered, so that the figures are very incomplete. This is, however, a notable step forward in the direction of comprehensive vital statistical records for our whole population. The usual features are to be noted as regards the causes of infant deaths among the European population, prematurity, congenital defects and birth injuries being predominant. Prematurity and conditions associated with it are also the main causes of African registered infant deaths, but infections of the new-born, respiratory and gastrointestinal infections, feature very strongly.

In the table of registered deaths at all ages, arterioschlerotic and degenerative heart disease, malignant disease, violence (accidental and otherwise) and vascular

lesions of the central nervous system, in that order, are the most prominent causes —the usual picture of an ageing civilization under stress. A slight but significant fall in the deaths from motor-vehicle accidents is welcome.

Among African registered deaths, on the other hand, the risks of infancy and childhood loom large—gastro-enteritis, respiratory infections, malnutrition and accidents of birth. Other accidents too, however, take a heavy toll particularly in urban areas to which registration mainly applies. The large number of deaths from various forms of malnutrition (mainly kwashiorkor) is probably a reflection of the concentration of these cases in the larger hospital units in urban areas in view of the better treatment facilities available. Attention is drawn to the importance of measles as a cause of mortality in African children. Malignant disease is also an important feature, the high incidence of cancer of the oesophagus being noteworthy.

CAUSES OF REGISTERED INFANT DEATHS, 1964.

Internat. list No. 3	Cause group	European	Asian	Coloured	African
A. 1	Tuberculosis of respiratory system	—	—	—	12
A. 2	Tuberculosis of meninges and central nervous system	—	—	—	4
A. 5	Tuberculosis, all other forms	—	—	—	5
A. 6	Congenital syphilis	—	—	—	10
A. 13	Paratyphoid fever and other salmonella infections	—	—	—	4
A. 18	Streptococcal sore throat	—	—	—	1
A. 20	Septicaemia and pyaemia	—	—	—	1
A. 22	Whooping cough	—	—	—	23
A. 23	Meningococcal infections	—	—	—	3
A. 26	Tetanus	—	—	1	90
A. 29	Acute infectious encephalitis	1	—	—	1
A. 31	Smallpox	—	—	—	4
A. 32	Measles	—	—	—	75
A. 34	Infectious hepatitis	—	—	—	1
A. 37	Malaria	—	—	1	7
A. 43	All other diseases classified as infective and parasitic	—	—	—	4
A. 56	Malignant meoplasm of bone and connective tissue	—	—	—	1
A. 64	Avitaminosis and other deficiency states	—	—	—	48
A. 65	Anaemias	—	—	—	2
A. 66	Allergic disorders: all other endocrine, metabolic and blood diseases	—	—	—	1
A. 68	Psychoneuroses and disorders of personality	—	—	—	1
A. 69	Mental deficiency	—	—	—	2
A. 70	Vascular lesions affecting central nervous system	—	—	—	4
A. 71	Non-Meningococcal meningitis	—	—	—	31
A. 73	Epilepsy	—	—	—	1
A. 77	Otitis media and mastoiditis	—	—	—	2
A. 78	All other diseases of the nervous system and sense organs	—	—	—	6
A. 87	Acute upper respiratory infections	—	—	—	5
A. 89	Lobar pneumonia	—	—	—	16
A. 90	Bronchopneumonia	2	2	1	308
A. 91	Primary atypical, other and unspecified pneumonia	1	2	—	73
A. 92	Acute bronchitis	—	—	—	1
A. 93	Bronchitis, chronic and unqualified	1	1	—	6
A. 95	Empyema and abcess of lung	—	—	—	4
A. 97	All other respiratory diseases	1	—	—	5
A. 103	Intestinal obstruction and hernia	—	—	—	9
A. 104	Gastro-enteritis and colitis except diarrhoea of the newborn	1	—	2	212
A. 105	Cirrhosis of liver	—	—	—	1
A. 107	Other diseases of digestive system	—	—	—	1
A. 108	Acute nephritis	—	—	—	1
A. 109	Chronic, other and unspecified nephritis	—	—	—	1
A. 110	Infections of kidney	—	—	—	1
A. 114	Other diseases of genito-urinary system	—	—	—	1
A. 121	Infections of skin and subcutaneous tissue	—	—	—	2
A. 125	Ankylosis and acquired musculoskeletal deformities	—	—	—	1
A. 126	All other diseases of skin and musculoskeletal system	1	—	—	3
A. 127	Spina bifida and meningocele	1	—	—	16
A. 128	Congenital malformations of circulatory system	7	—	1	19
A. 129	All other congenital malformations	7	1	1	56
A. 130	Birth injuries	6	1	1	103
A. 131	Postnatal asphyxia and atelectasis	9	—	3	297
A. 132	Infections of the newborn	6	1	2	414
A. 133	Haemolytic disease of the newborn	1	—	—	17
A. 134	All other defined diseases of early infancy	1	1	1	85
A. 135	Ill-defined diseases peculiar to early infancy and immaturity unqualified	18	6	4	569
A. 137	Ill-defined and unknown causes of morbidity and mortality	—	—	—	9
A. 138	Motor vehicle accidents	—	—	—	3
A. 143	Accident caused by fire and explosion of combustible material	—	—	—	13
A. 146	Accidental drowning and submersion	1	—	—	2
A. 147	All other accidental causes	—	—	—	17
A. 149	Homicide and injury purposely inflicted by other persons (not in war)	—	—	1	1
	TOTAL	65	15	19	2,616

CAUSES OF REGISTERED DEATHS, 1964

Classified According to the Seventh Revision of the International List of Diseases and Cause of Death: Intermediate List of 150 Causes

Internat. list No. 3	Cause group	European	Asian	Coloured	African
A. 1	Tuberculosis of respiratory system	3	—	1	308
A. 2	Tuberculosis of meninges and central nervous system	—	—	—	31
A. 3	Tuberculosis of intestines, peritoneum and mesenteric glands	—	1	—	14
A. 4	Tuberculosis of bones and joints	—	—	—	8
A. 5	Tuberculosis, all other forms	—	1	—	46
A. 6	Congenital syphilis	—	—	—	10
A. 7	Early syphilis	—	—	—	1
A. 10	All other syphilis	—	—	—	22
A. 12	Typhoid fever	1	—	—	13
A. 13	Paratyphoid fever and other salmonella infections	—	—	—	2
A. 16	Dysentery, all forms	1	—	1	60
A. 17	Scarlet fever	—	—	—	1
A. 18	Streptococcal sore throat	—	—	—	1
A. 20	Septicaemia and pyaemia	2	—	—	22
A. 21	Diphtheria	1	—	—	12
A. 22	Whooping cough	—	—	—	101
A. 23	Meningococcal infections	1	—	—	12
A. 25	Leprosy	—	—	—	2
A. 26	Tetanus	—	—	1	106
A. 28	Acute poliomyelitis	—	—	—	1
A. 29	Acute infectious encephalitis	1	—	—	7
A. 30	Late effects of acute poliomyelitis and acute infectious encephalitis	—	—	—	1
A. 31	Smallpox	—	—	—	13
A. 32	Measles	1	—	1	386
A. 34	Infectious hepatitis	3	—	—	14
A. 36	Tick-borne typhus	1	—	—	—
A. 37	Malaria	2	—	1	40
A. 38	Schistosomiasis	—	—	—	22
A. 41	Ankylostomiasis	—	—	—	1
A. 42	Other diseases due to helminths	—	—	—	5
A. 43	All other diseases classified as infective and parasitic	1	—	—	13
A. 44	Malignant neoplasms of: Buccal cavity and pharynx	7	—	—	11
A. 45	Oesophagus	4	2	—	68
A. 46	Stomach	27	—	2	34
A. 47	Intestine, except rectum	18	—	—	9
A. 48	Rectum	8	—	—	2
A. 49	Larynx	1	—	—	5
A. 50	Trachea, bronchus and lung, not specified as secondary	44	—	2	58
A. 51	Breast	31	—	—	5
A. 52	Cervix uteri	6	1	—	27
A. 53	Other and unspecified parts of uterus	5	—	—	1
A. 54	Prostate	12	—	—	10
A. 55	Skin	6	—	—	7
A. 56	bone and connective tissue	4	—	—	23
A. 57	other and unspecified sites	65	2	4	247
A. 58	Leukaemia and aleukaemia	10	—	—	13
A. 59	Lymphosarcoma and other neoplasms of lymphatic and haematopoietic system	12	1	—	26
A. 60	Benign neoplasms and neoplasms of unspecified nature	10	1	—	22
A. 61	Non-toxic goitre	—	—	—	1
A. 63	Diabetes mellitus	11	2	—	20
A. 64	Avitaminosis and other deficiency states	1	—	—	529
A. 65	Anaemias	8	—	—	37
A. 66	Allergic disorders, all other endocrine, metabolic and blood diseases	17	—	1	41
A. 67	Psychoses	10	—	—	24
A. 68	Psychoneuroses and disorders of personality	—	—	1	5
A. 69	Mental deficiency	—	—	—	9
A. 70	Vascular lesions affecting central nervous system	127	4	5	148
A. 71	Non-meningococcal meningitis	1	—	1	61

CAUSES OF REGISTERED DEATHS, 1964 *(Continued)*

A. 72	Multiple sclerosis	1	—	—	—
A. 73	Epilepsy	3	—	—	53
A. 75	Cataract	1	—	—	—
A. 76	Glaucoma	—	1	—	—
A. 77	Otitis media and mastoiditis	1	—	—	5
A. 78	All other diseases of the nervous system and sense organs	17	—	—	27
A. 79	Rheumatic fever	1	—	—	25
A. 80	Chronic rheumatic heart disease	8	—	1	56
A. 81	Arteriosclerotic and degenerative heart disease	282	10	6	50
A. 82	Other diseases of heart	26	2	3	113
A. 83	Hypertension with heart disease	27	2	1	20
A. 84	Hypertension without mention of heart	11	1	—	9
A. 85	Diseases of arteries	32	—	—	7
A. 86	Other diseases of circulatory system	4	—	—	12
A. 87	Acute upper respiratory infections	—	—	1	27
A. 88	Influenza	2	1	—	4
A. 89	Lobar pneumonia	9	1	2	116
A. 90	Bronchopneumonia	16	4	2	711
A. 91	Primary atypical, other, and unspecified pneumonia	8	3	—	247
A. 92	Acute bronchitis	1	—	—	6
A. 93	Bronchitis, chronic and unqualified	27	1	—	33
A. 94	Hypertrophy of tonsils and adenoids	1	—	—	—
A. 95	Empyema and abscess of lung	1	—	—	28
A. 96	Pleurisy	—	—	—	1
A. 97	All other respiratory diseases	18	—	—	47
A. 99	Ulcer of stomach	6	—	—	5
A. 100	Ulcer of duodenum	2	1	—	—
A. 102	Appendicitis	2	—	1	12
A. 103	Intestinal obstruction and hernia	13	—	1	86
A. 104	Gastro-enteritis and colitis, except diarrhoea of the newborn	5	—	6	608
A. 105	Cirrhosis of liver	19	2	—	114
A. 106	Cholelithiasis and Cholecystitis	4	—	—	—
A. 107	Other dieases of digestive system	15	—	1	92
A. 108	Acute nephritis	—	—	—	7
A. 109	Chronic, other and unspecified nephritis	8	—	—	49
A. 110	Infections of kidney	8	1	1	48
A. 111	Calculi of urinary system	2	—	—	1
A. 112	Hyperplasia of prostate	5	1	—	16
A. 114	Other diseases of genito-urinary system	6	1	—	39
A. 115	Sepsis of pregnancy and the puerperium	—	—	—	8
A. 116	Toxaemias of pregnancy and the puerperium	—	—	—	6
A. 117	Haemorrhage of pregnancy and childbirth	—	—	—	12
A. 118	Abortion without mention of sepsis or toxaemia	—	—	1	5
A. 119	Abortion with sepsis	—	—	—	10
A. 120	Other complications of pregnancy, childbirth and the puerperium	3	—	—	75
A. 121	Infections of skin and subcutaneous tissue	—	—	—	6
A. 122	Arthritis and spondylitis	4	—	—	1
A. 123	Muscular rheumatism and rheumatism unspecified	—	—	—	2
A. 124	Osteomyelitis and periostitis	—	—	—	7
A. 125	Ankylosis and acquired musculoskeletal deformities	—	—	—	2
A. 126	All other diseases of skin and musculoskeletal system	2	—	—	6
A. 127	Spina bifida and meningocele	1	—	—	16
A. 128	Congenital malformations of circulatory system	8	2	1	40
A. 129	All other congenital malformations	15	1	1	60
A. 130	Birth injuries	6	1	1	103
A. 131	Post-natal asphyxia atelectasis	9	—	3	297
A. 132	Infections of the new-born	6	1	2	409
A. 133	Haemolytic disease of the new-born	1	—	—	17
A. 134	All other defined diseases of early infancy	1	1	1	91
A. 135	Ill-defined diseases peculiar to early infancy and immaturity unqualified	18	6	4	569
A. 136	Senility without mention of psychosis	2	—	—	118
A. 137	Ill-defined and unknown causes of morbidity and mortality	26	2	2	168
A. 138	Motor vehicle accidents	64	6	4	214
A. 139	Other transport accidents	7	—	—	18
A. 140	Accidental poisoning	1	—	6	30

CAUSES OF REGISTERED DEATHS, 1964 *(Continued)*

Internat. list No. 3	Cause group	European	Asian	Coloured	African
A. 141	Accidental falls	17	1	1	45
A. 142	Accident caused by machinery	—	—	—	12
A. 143	Accident caused by fire and explosion of combustible material	3	—	1	89
A. 144	Accident caused by hot substance, corrosive liquid steam and radiation	—	—	—	12
A. 145	Accident caused by firearm	9	—	—	1
A. 146	Accidental drowning and submersion	11	—	1	54
A. 147	All other accidental causes	6	1	—	108
A. 148	Suicide and self-inflicted injury	27	1	—	104
A. 149	Homicide and injury purposely inflicted by other persons (not in war)	4	—	6	130
	TOTAL	1,306	71	82	8,137

CHAPTER II

COMMUNICABLE DISEASE

NOTIFIABLE INFECTIOUS DISEASES

The following table shows the number of notifications received of cases of disease notifiable in terms of the Public Health Act [*Chapter 167*] and of deaths from these diseases.

NOTIFIABLE INFECTIOUS DISEASES

	Europeans, etc.		*Africans*	
	Cases	*Deaths*	*Cases*	*Deaths*
Quarantinable diseases (in terms of the International Sanitary Regulations):				
Cholera	—	—	—	—
Plague	—	—	—	—
Smallpox	1	—	203	12
Louse-borne relapsing fever	—	—	—	—
Typhus fever (exanthematous)	—	—	—	—
Yellow fever	—	—	—	—
Tuberculosis and Silicosis:				
Pulmonary tuberculosis	34	1	4,022	291
Non-pulmonary tuberculosis	4	1	575	44
Silicosis with active tuberculosis	—	—	30	8
Virus Encephalitis Group:				
Acute anterior poliomyelitis	—	—	68	—
Rabies	—	—	1	—
Encephalitis	4	2	3	—
Encephalomyelitis	—	—	—	—
Bacterial Infections:				
Scarlet fever	28	—	11	—
Erysipelas	3	—	—	—
Tetanus	—	—	30	12
Puerperal septicaemia	—	—	6	1
Cerebro-spinal meningitis	—	—	2	—
Meningitis—other organisms	21	—	31	13
Diphtheria	8	—	67	17
Typhoid fever	25	—	143	5
Paratyphoid fever	4	—	7	—
Anthrax	—	—	—	—
Relapsing fever (tick-borne)	—	—	—	—
Trachoma	—	—	16	—
Trypanosomiasis	6	—	8	1
Infectious hepatitis	21	—	6	—
Rabies	—	—	1	—
Leprosy	—	—	290	1

It would be foolish to believe or to pretend that the figures in the above table reflect the real incidence of these diseases. No doubt many cases occur among the African population in remote areas that are never seen by anyone who is in a position to make an accurate diagnosis and to notify them. This is understandable. What is less understandable is the fact that the medical profession, and those associated with it, are by no means as meticulous in this matter as they should be. Not only is notification of a case of infectious disease a matter of medical conscience but it is a statutory duty, failure to observe which is punishable.

In view of the inaccuracy of the notified figures comment is confined to those diseases which are subject to special investigation and control measures by the staff of the Ministry or of Local Authorities.

SMALLPOX

There have been the following cases of smallpox in the rural areas during the year:

Province	*Cases*	*Deaths*
Northern . .	63	4
Midlands . .	5	—
S. Eastern . .	—	—
Eastern . .	52	2
Western . .	74	9
TOTAL . .	194	15

This represents a five-fold incidence as compared with last year. The one clue to the reason for this upsurge in the incidence of an eminently preventable disease is to be seen in the distribution of cases. With very few exceptions they occurred in border areas of the country or at the main ports of entry by road and rail, and were entirely due to importation of frank or incubating cases from neighbouring territories—notably Zambia, Moçambique and Bechuanaland. Of the total number of cases investigated, only a minority were secondary cases infected within Rhodesia by the imported cases, a fact which bears witness to the generally high level of vaccination protection achieved by the health staff of both central and local government organizations, and to the speed and efficiency with which reports of outbreaks were followed up and preventive measures taken. The finding and investigation of smallpox cases (many of whom are deliberately hidden) in remote rural areas is a difficult and thankless task and great credit must go to the Government health inspectors, field officers, health assistants and, by no means least, to the African lay vaccinators who worked many hours of what, in less conscientious circles, would be called overtime on this task. The opposition of ignorant superstitious primitives befuddled by the dogmas and dictates of religious and quasi-religious sects can be understood even if it is annoying. What is less understandable is the lack of co-operation and occasional obstruction encountered by health staff, in their efforts to control this dangerous epidemic disease, from employers of labour and others who should be more enlightened. I think it is necessary to give an unequivocal warning in this matter. This Ministry is dedicated to the task of eradicating smallpox from the land, in common with many other countries in the world in connexion with the World Health Organisation's campaign to this end. It is not our intention to allow ourselves to be hampered in this task by resistance, active or passive, to measures necessarily taken in accordance with the law of the land and the proven principles of the prevention of the disease. Therefore, in any area to which the legal measures applicable to vaccination and the control of smallpox are applied, it is the intention that anyone who unlawfully ignores these measures or permits or encourages others to do so will be prosecuted, whoever he may be.

The advent of the thiosemicarbazone derivative "Methisazone" as a possible preventive measure for those already exposed to infection is welcomed. It still requires investigation, both as a prophylactic and as a therapeutic measure in early cases. It will not yet, if ever, replace vaccination as a long-term preventive routine.

The following table shows the number of vaccinations carried out by the staff of the Ministry during the year, both in routine campaigns and in connexion with

the specific outbreaks which occurred in the Centenary Block in Northern Province, the border areas of Eastern Province, and the Plumtree (Bechuanaland Border) and Bulawayo areas of Western Province. In addition many vaccinations were carried out by the staff of local authorities (see appropriate table) and this Ministry wishes to thank and to commend local authority health departments for their co-operation in this and other important respects. This applies in particular to the staff of the Bulawayo Municipality who, together with the staff of the Provincial Medical Officer of Health, brought the outbreak (imported from Zambia) in the Western Province under speedy control.

VACCINATIONS 1st JANUARY to 31st DECEMBER, 1964

Total vaccinations	1,312,346
Number of primary vaccinations	232,545
Number of re-vaccinations	1,079,801
Number of primary vaccinations controlled	42,210
Number of positive primary vaccinations	31,270
Percentage of positive primary vaccinations	74.7 %

In the face of these repeated "invasions" by infected individuals it was considered urgently necessary to take steps to control the entry of un-vaccinated persons into the country. Certain complications exist in relation to migrant labour from Moçambique, but these will be resolved by negotiation so that travel documents may be issued to *bona fide* migrants, including evidence of vaccination against smallpox (and incidentally freedom from tuberculosis). It is realized, of course, that there are many illegal immigrants who simply cross the border through the bush. Documentation of legal migrants will, however, enable such people to be identified, prosecuted (along with their employers, if any) and deported. Vaccination certificates are now required from travellers from Zambia or Malawi.

TUBERCULOSIS

This is a disease of such public health importance that I make no apologies for giving a very full account of the situation and the measures in hand to deal with it.

Work has been aimed chiefly at the development of organized out-patient arrangements to enable tuberculosis patients to have the bulk of their treatment while leading their normal lives, and to reduce the unnecessary bed-load borne by the Ministry. The other main effort has been at the progressive increase of B.C.G. vaccination.

Mortality and morbidity

AFRICAN

PULMONARY

	Cases	*Deaths*	*Case rate per 100,000 population*	*Case mortality per cent.*
1964	4,022	291	103.1	7.2
1963	3,608	232	95.7	6.4
1962	3,788	270	102.7	7.1
1961	3,250	243	109.8	7.5
1960	3,347	245	114.7	7.3
1959	3,177	237	120.1	7.5
1958	2,939	242	114.6	8.2

NON-PULMONARY

	Cases	*Deaths*	*Case rate per 100,000 population*	*Case mortality per cent.*
1964	575	44	14.7	7.6
1963	596	58	18.2	9.7
1962	511	49	13.8	9.6
1961	401	63	13.6	15.7
1960	446	64	15.8	14.3
1959	486	51	18.4	10.5
1958	479	54	18.7	11.2

EUROPEAN, COLOURED, ASIAN

	PULMONARY		NON-PULMONARY	
	Cases	*Deaths*	*Cases*	*Deaths*
1964	34	1	4	1
1963	39	4	4	2
1962	37	1	6	1
1961	30	3	3	2
1960	55	6	5	—

Comment.—There has been a rise in the notification rate for the first time since 1959, when it reached its peak. This applied in all provinces except the Northern, where there was a very slight fall. The rapid opening-up of the South-eastern Province has contributed to this increase. The rise of 414 cases over 1963 is not accounted for by the case-finding procedures of contact examination and mass radiography; last year 297 cases were found by these methods, whereas this year the number was only 231.

NOTIFICATION OF ALL FORMS OF TUBERCULOSIS DURING 1964 BY DISTRICTS

NORTHERN PROVINCE

	1964	*1963*
Salisbury Municipality	101	119
Salisbury Peri-urban and District	248	242
Marandellas	209	228
Sinoia	238	198
Bindura	121	185
Charter/Buhera (January-June)	44	—
Gatooma/Hartley/Norton (July-December)	80	—
TOTAL	1,041	

EASTERN PROVINCE

	1964	*1963*
Rusape/Inyanga	221	169
Umtali town	53	30
Umtali District	106	119
Chipinga	188	205
Buhera (July-December)	18	
TOTAL	586	

	SOUTH-EASTERN PROVINCE			WESTERN PROVINCE	SOUTH-EASTERN AND WESTERN PROVINCES
	1964	*1963*	*1962*	*(July-December, 1964)*	*January-December, 1964*
Beitbridge				15	
Binga				4	
Bubi				25	
Bulalima Mangwe				58	
Bulawayo City				160	
Bulawayo District				57	
Gwanda				72	
Insiza (Filabusi)				28	
Lupane				66	
Matobo				19	
Mzingwane (Essexvale)				18	
Nkai				9	
Nyamandhlovu				23	
Wankie				47	
Shabani	50 (Jan.-June)	56	29	55	105
Belingwe	95 (Jan.-June)	122	73	80	175
Chibi	113	86	86		
Victoria	231	101	92		
Gutu	195	71	46		
Nuanetsi	47	35	30		
Ndanga	144	110	91		
Bikita	65	109	95		
Imported	26	17	30	23	
TOTAL for province	923	707	615	759	

Comment.—The number of notifications in an area is influenced by—

(a) the number of cases occurring;

(b) the degree of development of the area, i.e. proportion of cases occurring who report to hospital; and

(c) the amount of case-finding work being conducted.

In the developing South-eastern Province there has been a uniform increase in notifications over the past three years; this can be attributed chiefly to increased development ((b) above) and it is impossible to tell yet whether a real increase in tuberculosis is occurring. The single exception is the fall in Bikita District in 1964, which is probably attributable to the absence of a doctor at Silveira Mission during the year. This would seem to be a striking illustration of the fact that the presence of a doctor in a hospital is considered important by patients.

In other areas the trend has been towards constancy or a slight fall in the central areas, though Umtali town and Sinoia (including Banket and Karoi) have had a boost, probably from the establishment of local tuberculosis clinics. Remoter areas have had an increase in general, though there was a fall in Chipinga District which is hard to explain.

Number of cases under treatment on 31st December, 1964

AFRICAN

	Pulmonary								Non-Pulmonary								Total
	In-Patients				Out-Patients				In-Patients				Out-Patients				
	Adults		Children		Adults		Children		Adults		Children		Adults		Children		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Government	516	347	124	88	832	415	160	136	78	39	31	36	48	34	36	29	2,949
Municipal	177	82	35	26	359	94	52	70	11	6	7	—	8	14	19	11	971
Mission	330	232	112	103	146	131	50	47	21	17	13	21	32	28	12	8	1,303
Private	32	2	2	7	35	15	8	21	1	—	—	1	—	4	—	—	128
R.A.P.T.	190	—	11	—	63	2	7	5	6	—	—	—	2	—	2	1	289
TOTAL	1,245	663	284	224	1,435	657	277	279	117	62	51	58	90	80	69	49	5,640

COLOURED AND ASIAN

Government	2	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	3
Municipal	1	—	—	—	6	3	1	—	—	—	—	—	2	—	—	—	13
Mission	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Private	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
R.A.P.T.	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1
TOTAL	3	—	—	—	8	3	1	—	—	—	—	—	2	—	—	—	17

EUROPEAN

Government	—	2	—	—	2	4	—	—	—	—	—	—	—	—	—	—	8
Municipal	4	1	—	—	20	12	3	1	—	—	—	—	—	—	—	—	41
Mission	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Private	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	2
R.A.P.T.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL	4	3	—	—	24	16	3	1	—	—	—	—	—	—	—	—	51

SUMMARY OF ALL PATIENTS

	In-Patients			Out-Patients			Grand Total
	Pulmonary	Non-Pulmonary	Total	Pulmonary	Non-Pulmonary	Total	
Government	1,079	184	1,263	1,550	147	1,697	2,960
Municipal	326	24	350	621	54	675	1,025
Mission	777	72	849	374	80	454	1,303
Private	43	2	45	81	4	85	130
R.A.P.T.	201	6	207	78	5	83	290
TOTAL	2,426	288	2,714	2,704	290	2,994	5,708

Comment.—The total number of in-patients is a little less than last year (when it was 3,050). The number of out-patients is probably very inaccurate, though the figure obtained is similar to last year's (3,048). For 1965 the figures for out-patients will be obtained through the tuberculosis clinics.

Diagnostic Services

The country's first tuberculosis laboratory opened at Mpilo Hospital early in the year, and has extended its activities by degrees. At the end of the year there was a fairly good coverage of the Western Province. Further expansion is somewhat hampered by shortage of staff to deal with the increasing volume of clerical work to be done.

Treatment

In-patient treatment.—The urgent need for more beds in the remoter areas, combined with the satisfactory state of control of tuberculosis in the larger towns and the ease with which out-patient treatment can be evolved in the most developed areas has necessitated a realignment of subsidies to non-Government bodies so that a much-needed increase in mission beds in the more remote areas is possible. Seventy-seven additional mission beds were recognized during the year, and authorized beds in the two major cities are expected to be reduced during 1965.

Absconders from in-patient treatment. — Newly established tuberculosis hospitals always start with a high absconding rate, which improves as their reputation develops. The year has shown a marked improvement of this at the R.A.P.T. Centre, Gwelo, and figures compiled for most of the hospitals in the Midlands and South-eastern provinces indicate a general improvement over the past three years, as well as an increase in the proportion of absconders recovered.

Out-patient treatment.—During the year the routine treatment of out-patients was changed from INH/PAS to INH/Thiacetazone, issued as a single daily tablet with the title "HT". Patients appear to appreciate the change, which reduces their daily consumption of tablets from 27 to one.

The development of controlled treatment from a series of weekly or monthly tuberculosis clinics throughout the country, manned by both curative and public health staff, continues apace. The exact approach varies from one province to another. The Northern and Eastern provinces have adopted a system of using a few central clinics, each with a number of outlying treatment centres. In the Midlands and South-eastern provinces there are a much larger number of clinics, without the use of outlying treatment centres. Although this means much more work for the Tuberculosis Officer, it has the advantage that patients see the doctor at each monthly visit. In the Western Province the main centres are used as review clinics for patients who can reach them monthly, and at the same time a domiciliary scheme operates for those living in more remote places, the health assistants acting as agents for the handing out of treatment.

Few figures are yet available to show the success or otherwise of the out-patient scheme. With the increased registration now taking place much better figures should be available in 1965. The aim will be to note the proportions of defaulters from review and from treatment, the average length of default, the proportion of patients lost from treatment altogether, the average length of treatment that these received, and later—the real proof of the pudding—to discover the proportion of relapses and their correlation with earlier default from treatment.

Figures from the Midlands register, however, show that of 982 patients on out-patient treatment or surveillance there were only 24 defaulters in July, 1964, and all but four of these had come back after six months.

Provincial registers.—All provinces have now begun to develop systems of registration, of which the main purpose is the control of treatment from the time of notification to the completion of a full course. The chief difficulty is the lack of clerical staff to do this, and in most areas such refinements as the continued registration and control of patients under surveillance without treatment is out of the question. The lack of clerical help means that developing a system of registration falls into three phases—

(a) when an out-patient clinic starts the recording of attendance on cards and the pursuit of defaulters becomes obligatory;

(b) this may be expanded to the numerical registration of all out-patients in the province, with an alphabetical master-index kept centrally to detect and correct any double-registration done at one of the clinics;

(c) with sufficient clerical assistance to record on the cards all notifications and transfers advised to the office of the provincial medical officer of health and to make periodical checks on the whereabouts of patients thought to be in-patients, it becomes possible to make registration comprehensive and follow the patient from the time of notification to the end of his prescribed treatment period.

As with out-patient treatment, the approach to registration has varied in different areas. The Midlands and South-eastern provinces have the oldest and very much the most complete registers, taking in a large back-log of patients and including many who are not on treatment. The emphasis in the system of registration is geographical and it is hoped to extract from the register a large amount of epidermiological information.

The Northern Province is moving from stage (a) to stage (b) above, and in the Western Province the domiciliary treatment scheme is fully covered by registration, while plans have been matured to start comprehensive registration (stage (c)) from the beginning of 1965. Registration in the Eastern Province has started during the year with the allocation of numbers to all patients newly notified, while the weekly out-patient clinic at Umtali Hospital is covered by a prospective calendar system.

Samples of information available from registers.—There were 2,810 known active and healed cases on the Midlands Register out of a population of about 400,000, giving a rate of 7/1,000 of the population who have been affected at some time. Of these 2,810, 2.1 per cent. were under one year of age, 17 per cent. under five, 30 per cent. under 16, 25 per cent. over 45 and 8.4 per cent. over 60.

The South-eastern Province register brought to light 8 per cent. of active cases under treatment for whom notification had been omitted; notification is however improving in this area.

Another interesting point that emerges from the South-eastern Province register is that the proportion of non-pulmonary cases is greatest in the 11 - 20 age group, in which 22/84 or 26 per cent. are non-pulmonary cases.

Contact-Tracing

The numbers examined were as follows:

	Western	*Midlands*	*South-Eastern*	*Northern*	*Eastern*	*Total*
Investigated . .	1,383					
X-rayed . . .	535	(Not known)		806	361	1,702
Active tuberculosis .	29	(Not known)		14	31	74
Observation . .	30	(Not known)		—	—	—
Percentage active .	5.4%			1.7%	8.6%	4.2%

Contact-tracing work still remains very limited because of shortage of transport for contacts to be brought in for X-ray. Because of this, work is being developed along other lines in certain areas; for instance in the Western Province the health assistants seek out contacts with symptoms and take sputum smears from suspects. In the Midlands routine contact work was found to be singularly unrewarding this year, and the approach is being developed, instead, of questioning patients closely about symptoms amongst their contacts.

Mass Radiography

The M.M.R. Unit No. 2 started work in March and has worked in the Midlands Province for the rest of the year.

The numbers of persons "processed" were as follows:

	Western	*Midlands*	*Eastern*	*Total*
Examined:				
African	—	—	22,872	—
Non-African	—	—	6,131	—
TOTAL	15,906	20,518	29,003	65,427
Active tuberculosis:				
African	—	—	33	—
Non-African	—	—	0	—
TOTAL	20	104	33	157
Observation:				
African	—	—	28	—
Non-African	—	—	0	—
TOTAL	9	272	28	309
Inactive tuberculosis	20	165	—	—
Active tuberculosis per thousand	1.26	5.06	1.14	2.40

This total of 65,427 examined compares with 33,986 donc in 1963 with Unit No. 1.

The yield in both Eastern and Western provinces was very low. In the Midlands the unit worked chiefly in mining areas and the towns, and there was a much higher number of active cases.

It is interesting that the 6,131 non-Africans examined in the Eastern Province, mainly in Umtali, produced no case of tuberculosis.

B.C.G. Vaccination

As in other African countries, B.C.G. is our best preventive measure against tuberculosis. The following numbers of vaccinations were done (Shabani and Belingwe districts were in the South-eastern Province at the time they were done and are included as part of this province):

Western	31,430
Midlands	64,365
South-eastern	77,637
Northern	10,596
Eastern	15,703
TOTAL	199,731

In addition 5,000 B.C.G. vaccinations of the new-born were done at Mpilo Hospital.

The following are the total numbers of B.C.G. vaccinations done by Provincial Medical Officers of Health yearly since 1959:

1959	22,319
1960	79,326
1961	164,282
1962	121,205
1963	136,703
1964	199,731

The extensive vaccination programme in the South-eastern Province has now covered 231,901 people up to age 17 - 20, and is estimated to have included 63 per cent. of the population up to age 17, and nearly the whole of this age group in the Belingwe District. Disappointment has been expressed that the notifications of tuberculosis in young people have not decreased as a result of this programme; however, since the natural rate of tuberculin conversion is only 4 per cent. per annum, and since it takes most individuals several years after conversion to develop overt tuberculosis, no immediate effect should be expected. A steady decline can, however, be anticipated later. In Bikita District, which has also had a very intense programme, there are some signs of a decline in incidence, though this may be due to non-reporting to Silveira Mission Hospital since the doctor left early in the year.

During 1964 all preliminary tuberculin-testing was dropped and the more rapid and convenient method of "blind" B.C.G. vaccination adopted. No ill-effects appear to have resulted from this.

In the Western Province routine smallpox and B.C.G. vaccination are now combined.

In Chiduku Reserve political propaganda and intimidation interfered with the programme, and it has now been found necessary to exclude this area completely from the Eastern Province programme.

Liquid vaccine, which is considerably cheaper though less convenient, is used in the Midlands and South-eastern provinces and administered by intradermal injection. The Western, Northern and Eastern provinces use the multiple-puncture gun with concentrated freeze-dried vaccine.

Research

During the year two trials of tuberculosis treatment were commenced in conjunction with the British Medical Research Council: one of streptomycin with thiacetazone with a view to establishing thiacetazone as a complete substitute for P.A.S. for in- as well as out-patients, and the other to compare conservative and surgical treatment of spinal tuberculosis, combined with chemotherapy.

Our domestic trial of secondary drugs continues and is indicating that three-drug regimens, unlike those with two drugs, produce a fair rate of success.

Propaganda and Education

During the year a pamphlet for out-patients on discharge was prepared in Chishona and SiNdebele, and printed by the good offices of the Rhodesian Association for the Prevention of Tuberculosis.

A further pamphlet for mass distribution has been designed and it is hoped that R.A.P.T. will undertake the printing of this also. R.A.P.T. have also supplied posters on tuberculosis generally and on mass radiography.

A film on tuberculosis was made during the year.

A statement of policy was put out in the press in September, at the request of R.A.P.T.

A long account of tuberculosis work in Rhodesia, in three parts, was written for the Central African Journal of Medicine and will be published shortly. An article was also written for health assistants about the health assistants' part in

tuberculosis work, and issued as a cyclostyled pamphlet. Articles were published in the Ministry's newsletter on the use of steroids in tuberculosis and on B.C.G. vaccination of the new-born.

A talk on tuberculosis was given to the Que Que Rotary Club.

In spite of the slight increase in the number of reported cases this year as compared with last, the general trend of the incidence of this disease in Rhodesia is encouraging. Very few of the so-called "developing countries" could say the same. We should not, however, be encouraged to rest on our oars, but rather to redouble our efforts, because unless we do eliminate this disease completely in the near future, we may well lose the advantage which powerful chemotherapeutic agents have given us. A concerted effort now could well see success soon and at little cost.

The main objectives will be to find and treat the infected and to immunize the uninfected. The essential prerequisite to these measures is a sufficiency of competent field staff. Perhaps the most important aspect of the programme is the organization of out-patient treatment, as this, properly controlled, permits many more cases to be treated for the same money than do hospitals. A close network of personnel throughout the country must be built up, and supervisory staff provided to maintain their efficiency. Fortunately such an "infrastructure" can, and indeed should, be multi-purpose and be concerned with problems of malaria, leprosy, nutrition, blindness and other endemic conditions, as well as with tuberculosis. The obvious agent to carry out these functions, while continuing his role of health educator, is the health assistant, and the future of the tuberculosis programme will hinge on the training and employment of more and more of these workers. To provide supervision and co-ordination of tuberculosis work in each province a tuberculosis medical officer is required in each province, and steps will be taken to achieve such appointments as soon as possible. Meanwhile, all concerned with this aspect of the public health programme can look back on a year of substantial progress. Not least among these should be the Rhodesia Association for the Prevention of Tuberculosis, and all who have assisted this organization in its work, of which more will be said below.

POLIOMYELITIS

Not one case of poliomyelitis was notified from the European, Coloured and Asian population during the year. This is eloquent testimony to the efficacy of the oral vaccine. There is no other explanation for the virtual disappearance of this scourge from the population groups who made most use of the opportunity for immunization while the disease still remains among the African population who did not. It is, however, imperative that the level of immunity be maintained. It is difficult to believe, but it is a fact, that there are among us those whose brand of logic will lead them to say: "There is no polio about; why should I bother to have my child immunized?" The absence of "wild" virus from the environment of one section of the population is all the more reason for artificial immunization; the continuous presence of the virus among the African population is proven by the occurrence of 68 notified African cases during the year.

The Ministry intends, during the ensuing year, to bring both the need for and the facilities for immunization by the oral route before the public, and it is hoped that this time African parents will be more mindful of the welfare of their children and seek the protection of the vaccine for at least the younger ones.

LEPROSY

With the virtual closure of the Mtemwa Leprosy Hospital by the Federal Ministry of Health in 1963, the only institution which retains and treats active cases of leprosy is Ngomahuru Hospital near Fort Victoria. The work of this unit during the year can be summarized as follows:

	Males	*Females*	*Total*
On register as at 1st January, 1964 .	417	222	639
Admitted during the year . . .	203	76	279
Re-admitted	12	7	19
Discharged, cured or arrested . .	189	89	278
Deserted	21	11	32
Died	5	4	9
On register as at 31st December, 1964	417	201	618
Out-patients	143	88	231

The table of infectious disease notifications shows 290 cases to have been notified during the year. Apart from indicating that the closure of Mtemwa may have been a little premature, as Ngomahuru is very full, the number and distribution of the new cases indicates that there is a considerable residue of infection in the low-lying river valley areas of the country. As in tuberculosis, the secret of controlling or even eradicating leprosy lies in finding cases and bringing them under treatment; and because, as in the case of tuberculosis, many cases, if found early, can be treated as out-patients almost from the outset, there is no need to be afraid of looking for these cases lest they prove to be too numerous for the available facilities. Preparations are now in train for a detailed survey of the reservoir areas with no lesser object than the eradication of leprosy from the country.

We were unfortunate in losing, during the year, the specialist in charge of Ngomahuru Hospital, who had to return to South Africa for personal reasons. The vacancy was filled for a period by a medical officer who is interested in this disease. However, we have now been fortunate enough to regain the services of the very wise and respected leprologist who was previously in charge of this unit for many years.

One factor lacking at Ngomahuru is a physiotherapy and occupational therapy unit. Without this it is difficult to prevent and treat the deformities which are often present or which develop in neglected cases of leprosy. Nor can the full value of corrective surgery be obtained without effective after-treatment of this nature.

It is hoped to enlist the help of the World Health Organisation in providing personnel to set up an occupational therapy and physiotherapy unit at Ngomahuru during 1965.

TRYPANOSOMIASIS

There have been six European and eight non-European cases of this disease notified during the year. As far as the European is concerned this is an eminently avoidable disease which no one need acquire unless he "asks for it". It is a matter of some puzzlement that many Europeans do persist in asking for it by exposing themselves and their families, mainly during holiday weekends, to known risks of infection.

TYPHOID FEVER

There remains an unnecessarily high incidence of this disease and its close relations. No major localized outbreaks have occurred, but nevertheless we have

succeeded in producing a total of 168 cases (25 European and 143 non-European) during the year, a number which would have created quite a panic if they had occurred in a population of similar size concentrated in a city. In many cases the source of infection has not been traced. Casual contact with a carrier is likely. But in too many the infection has been traced to domestic water supplies improperly protected or unpurified. The idea that a clear water is a clean water dies hard.

OTHER COMMUNICABLE DISEASES

BILHARZIASIS

This has always been an important public health problem in Rhodesia. With the opening up of vast tracts of country, the productivity of which depends on irrigation, it has become a problem of direct economic importance. Apart from *ad hoc* measures of control carried out by the staff of provincial health offices and local authority health departments, the main activities are centred on the work of the Research Laboratory, a unit which had, even before the advent of the Federation, achieved a considerable degree of international standing. As the Director of the unit reports: "The changeover from the Federal to the Southern Rhodesia Government administration was effected with little, if any, interruption in the work of the laboratory, and it is thus possible to report that the work has progressed steadily and with excellent results." The continued recognition of the unit is indicated by the list of visitors entertained during the year.

February . .	Dr. Dion Bell, late E.A.M.R., Mwanza. Prof. John Squire, Leith Professor of Experimental Pathology, Birmingham University. Dr. W. Latham, American representative in London of National Institute of Health.
April . . .	Dr. M. G. Gillies, British Museum. Dr. D. H. S. Davis, Medical Ecology Centre, State Department of Health, South Africa.
May	Dr. L. J. Olivier, Leader, W.H.O. Bilharzia Assessment Team, Geneva. Mr. A. S. Vasey, Executive Secretary, British Commonwealth Scientific Committee. Mr. B. E. Ammundson, American Embassy, Mogadishu.
July	Mr. F. W. Dyson, Shell Chemical Company, Johannesburg. Health inspectors from Northern Rhodesia for training.
August . . .	Health inspectors from Northern Rhodesia for training. Dr. J. H. S. Gear, South African Institute for Medical Research, Johannesburg. Prof. Craib, C.S.I.R., Pretoria. Dr. R. Elsdon-Dew, Director, Amoebiasis Research Unit, Durban. Prof. J. A. van Eeden, Potchefstroom University. Dr. H. Frank, Bilharzia Unit, Nelspruit.
October . . .	Dr. M. S. Hopf, Tropical Pesticides Research Committee, London. Dr. Friedheim, Friedheim Laboratories, Geneva.
November . .	Dr. N. H. Kent, Bio-Immunologist, W.H.O., Geneva. Mr. Z. Buzo, Engineer, W.H.O. Bilharzia Assessment Team, Geneva. Dr. R. L. Kaiser, Communicable Diseases Centre, Atlanta, U.S.A. Dr. L. G. Kagan, Communicable Diseases Centre, Atlanta, U.S.A. Dr. R. Watson, Rockefeller Foundation, New York.
December . .	Dr. N. Ansari, Chief, Parasitic Diseases, W.H.O., Geneva.

Research Activities

Following the programmes of previous years, emphasis was given to studies in the epidemiology of bilharzia, the ecology of the snail hosts, and the methods of control. The following main projects were undertaken:

The influence of acquired resistance to bilharzia in the epidemiology of the disease.—The results obtained indicate the importance of the development of immunity to bilharzia, and they indicate that unless efficient control measures are maintained in the irrigated areas of the Sabi-Lundi valleys, the morbidity due to the disease, particularly to *S. mansoni* infections may jeopardize the development of the sugar industry.

Snail ecology.—These studies have followed the lines initiated in 1963.

Studies of seasonal fluctuations of snail and infected snail populations continued. These were extended to cover different types of habitat.

The behaviour patterns of snails were also investigated, of particular interest were the studies of vertical distribution of snails at different temperature gradients. It is felt that such studies may lead to more efficient and economical control. Most of this work has been conducted in a thermal choice chamber in the laboratory, but field investigations have also been attempted.

Molluscicide trials.—Laboratory trials were carried out on a number of formulations to determine the LD_{50} and the minimum dose to kill 100 per cent. of snails. Trials were conducted against *B. globosus, B. pfeifferi* and *L. natalensis* with highly encouraging results in respect of one molluscicide.

This compound is 100 per cent. effective against *B. globosus* at a concentration of 0.5 p.p.m. for five hours. With both other species similar exposure to 0.125 p.p.m. produces 100 per cent. mortality. If contact period is varied, 1.0 p.p.m. produces 100 per cent. mortality to all species in just 15 minutes' exposure.

Field trials were carried out in five dams—in one instance an assessment of the effect on the microfauna was carried out, and quantitative snail sampling was used to determine the efficacy of the molluscicide. In addition to this a total of 12 miles of streams were sprayed by hand.

Results have been varied but encouraging—further research is required into—

(a) the behaviour of the formulation in flowing water;

(b) the effects of low concentration for long exposures;

(c) the use of spreadable formulation.

The effects of human behaviour on transmission of bilharzia.—During the year Mr. E. L. Hustings, working on a Rockefeller Foundation research grant awarded to the University College of Rhodesia and Nyasaland commenced work on this project in the Mazoe Valley. Since this grant was awarded to the University following an initial approach from the Ministry, Mr. Husting is working in close liaison with the laboratory, and his programme has been designed from the laboratory. The results so far obtained show that a detailed knowledge of the social habits of rural Africans will be essential if satisfactory, and economical, control of transmission is to be achieved.

Immunological diagnosis.—In conjunction with research workers visiting the laboratory under the auspices of the World Health Organisation, an intensive investigation of the diagnostic value of skin tests, fluorescent antibody tests and

specimen examinations were undertaken. The results demonstrated the diagnostic value of these tests, particularly if they are used as negative screening procedures.

Drug trials.—Dr. E. Friedheim visited the laboratory and, with technical assistance from the laboratory, he initiated a programme to assess the therapeutic value of an antimony-based drug developed by him. No results are available.

A start was also made on the assessment of the efficacy of the Ciba drug BA 32644.

Routine Work

A total of 2,141 fluorescent antibody tests were undertaken. Most of these were on paying patients referred to the Public Health Laboratory by medical practitioners, but there were many tests on members of the police. Of the 2,141 tests undertaken 783 showed the presence of anibodies.

Experimental Control

Triangle and Hippo Valley.—The control of snails and transmission of bilharzia in these two irrigated areas was given priority during the year.

Comprehensive snail and parasitological surveys were carried out on both irrigation estates in January and February and, as a result, baseline information of the prevalence of both *Schistosoma haematobium* and *S. mansoni* has been obtained. It is interesting to note that on Triangle Estate where both flood and spray irrigation are practised, there was a slight difference in the incidence of *S. haematobium* in the two regions of the estate.

SCHISTOSOMA HAEMATOBIUM

	Spray	*Flood*	S. mansoni *whole estate*
Number examined .	189	318	565
Number +ve . .	69	134	89
Percentage +ve .	38.1%	42.1%	15.8%

The overall incidence of *S. mansoni* is low. Hippo Valley Estate use flood irrigation methods predominantly and the incidence of both *S. haematobium* (31.0 per cent.) and *S. mansoni* (12.5 per cent.) is somewhat lower than on Triangle. This may be due to the fact that the cultivation of sugar on Hippo Valley is very new and there has been no build-up of infection among the workers and their families as yet.

The flood system of irrigation necessitates the construction of large numbers of night storage dams among the fields. The water is stored in these reservoirs before running out along canals and into furrows. These dams are ideal habitat for *B. pfeifferi* and extremely heavy populations of this species have been found.

A similar situation exists in the regenerated waters which are drained from the lands and now provide a perennial supply to the streams in the area. The result is that the streams have become heavily overgrown and that snail populations within the streams have increased considerably.

Snail control in the irrigation (as opposed to the drainage) part of the system in both Hippo Valley and Triangle has been carried out with a considerable degree of success. The co-operation of the personnel on the estates has been excellent, and all chemical used in the operation was provided by the estates.

Hippo Valley Estate was treated on the 11th April. Following the successful reduction of snail populations on the estate, the management employed two snail rangers to treat regenerated water and to examine canals and night storage dams for build-up of snail populations.

Control in the regenerated waterbodies and streams has not been successful and it is unlikely that conditions will improve until adequate staff and facilities exist for the high degree of planning and supervision required to ensure efficient surveillance.

Hippo Valley Estate was treated a second time in November, when it was found that snails (mainly *B. pfeifferi*) were beginning to appear in small numbers. Surveys carried out subsequently indicate that the November treatment was very successful.

The irrigation water to the flood system section of Triangle Estate was treated with bayluscide on 11th August. The operation was difficult and required a considerable amount of planning. The problem is that there are eight points of entry of water into the estate and it required a high degree of co-operation on the part of the Triangle staff to ensure complete success. In point of fact, some 120 night storage dams and many miles of canals were treated.

General.—Snail control measures were maintained in the catchment of the Kyle Dam, in the Mazoe Valley, in the Norton-Hartley area, and in the environs of Bulawayo. Good co-operation has been maintained with the farmers, although there remain some who do not appreciate the value of the control programme. Surveys in the Kyle catchment show a continuing decrease in the proportion of children showing infection.

International Travel

During the year three members of staff travelled to Europe on duty.

Mr. P. A. Garnett visited laboratories in Germany, Denmark and Britain on a grant from the World Health Organisation.

Dr. C. J. Shiff attended the International Congress on Parasitology in Rome in September, and he also visited Britain and Germany.

In November, Mr. V. deV. Clarke attended a meeting convened in Geneva by the World Health Organisation. The subject of the meeting was, "Molluscides".

MALARIA

During the Federal era anti-malaria operations in Southern Rhodesia were centred on a Malaria Eradication Organisation which had been formed to put into effect the first phase of an eradication programme in conjunction with a World Health Organisation team which was to have been provided in accordance with an agreed plan of operations. When the dissolution of the Federation took place it was obviously necessary to reassess the position in the light of the following factors:

(a) The financial position consequent on the dissolution.
(b) The presence or otherwise of actual or planned operations in neighbouring territories.
(c) The rate at which could be achieved the build-up of the health "infra-structure" in rural areas which is essential for the maintenance of the position after eradication.

On consideration and after discussion with World Health Organisation officials and consultants it was decided to postpone any immediate attempt at eradication and, instead, to embark on a pre-eradication programme, the essence of which is to carry out detailed surveys of the malaria situation in all parts of the country while building up the rural health services. At the same time a pilot eradication project in a limited area could be undertaken on the basis of which the logistics and finances of a total eradication programme could be assessed. A plan of operations agreement with the organization was eventually reached on these lines.

The Malaria Unit has therefore been reconstituted and is carrying out reconnaissance work and preliminary control in the pilot area and its environs while awaiting the arrival of the World Health Organisation team.

In one area of Matabeleland which, in the Federal days, had been staffed with a fairly close network of personnel on the lines required for post-eradication surveillance, the personnel, instead of being discharged, were incorporated into the health staff of the Provincial Medical Officer of Health and were given an additional basic training to enable them to undertake a more varied role as multi-purpose health workers. This is in accordance with the philosophy expounded by the World Health Organisation in its papers on the subject of the incorporation of specific projects into general health programmes.

Although difficulties have been encountered in the training of these personnel there are already indications that a simple "general purpose" worker, capable of a variety of simple but timely treatment and prophylactic measures directed at prevalent disease, can do much to reduce the expensive load on more sophisticated medical services.

While these plans have been under consideration the importance of continuing work on malaria control by the general health services provided by Provincial Medical Officers of Health has not been overlooked and funds were allotted for this purpose during the year with some improvement in the general situation. It is intended in future to assure that routine control measures under the Provincial Medical Officers of Health should be able to continue, with special emphasis on resettlement areas, quite independent of the work of the Malaria Unit which will be concerned with the pre-eradication programme.

MISCELLANEOUS

There have been no occurrences during the year of any of the group of arthropod-borne virus diseases such as o'nyong nyong or chikungunya fever which have aroused interest in recent years.

One Government medical officer reports a high local incidence in her area of acute amoebiasis among African children, complicated in a high percentage of cases by liver abscess formation.

Note was taken above of the importance of certain infectious diseases of childhood as causes of infant mortality. The importance of these diseases as causes of permanent blindness cannot be overstressed. Smallpox with infection of the eye is a well-known cause of loss of sight, but many more cases follow measles, the effects of which are aggravated by malnutrition (Vitamin A deficiency) on the one hand and native herbal "remedies" on the other.

The advent of cheap, live, measles-virus vaccine which can be put to practical use in the rural areas of Africa will probably save more death and disability than even smallpox and polio vaccines.

CHAPTER III

HOSPITAL, CLINIC AND PERSONAL HEALTH SERVICES

Three main factors go to make up a service for the care of the sick and injured. These, not in order of importance, are buildings, staff, supplies, including equipment. There are other subsidiary factors such as transport, of which more anon, but a review of the above three is called for here.

BUILDINGS

During the Federal era most of the capital available to the Ministry of Health was, for obvious reasons, applied to the much-needed improvement of the standard of hospital buildings in the northern territories. Apart from the completion of Harari and Mpilo hospitals, committed before Federation, only a few minor units were built in this country. Thus in 1963, when the Federation was dissolved, projects which had been at the top of the priority list in Southern Rhodesia in 1953 were still there. Notable among these were the Gwelo, Marandellas and Que Que hospital reconstruction proposals.

Nevertheless, as I have stated in my introductory remarks, the standard of provision of hospital buildings as regards bed space was, and is, in Rhodesia on a more generous scale than in most African territories, and the development plan has therefore been reviewed not so much with a view to overall expansion of bed provision, but with the following principles in mind:

(a) The improvement of the standard of buildings by replacing old and dilapidated structures with modern buildings planned with an eye to labour saving and ease and economy of maintenance.

(b) The provision of additional units only where no facilities at all exist at present and where units of at least district hospital standard are likely to be required.

(c) The improvement of diagnostic and treatment facilities at existing hospitals in order to increase the turnover or utilization of existing hospital beds, thus limiting the need for further bed provision.

In this latter connexion it is worthy of note that the once generally accepted concept of assessing hospital service needs on the basis of the number of beds required, and of classifying hospitals on the number of beds they provide, is now outdated. Hospitals are no longer places for beds, with a few diagnostic and treatment facilities attached, in which time, nursing and Providence effect a cure. The modern hospital should be a place of highly efficient diagnostic and treatment facilities, with staff trained to use them, with a few beds attached for the convenience and comfort of the patients while being investigated and treated.

These are the first priorities as regards future building development, but at the same time we cannot ignore the fact that the African population is increasing by 130,000 annually. To keep the *status quo* as regards the ratio of bed provision it would therefore be necessary to provide additional hospital beds at the rate of some 500 per year! This is such a formidable prospect that it must bring home to us the urgency of improving preventive services so as to keep people *out* of hospital.

During the year, progress in the building programme was somewhat limited by shortage of architectural services and was confined to—

(a) certain additions and improvements to Harari Hospital to provide an ophthalmic unit (by conversion of an old orderlies' hostel) and to prepare this hospital for its temporary function of a teaching unit in connexion with the medical school pending the completion of the teaching hospital;

(b) the completion of Siabuwa Health Centre in the Sebungwe District;

(c) the commencement of buildings of an African wing of the Shabani District Hospital where African in-patient facilities have hitherto been totally absent, save for a grossly over-crowded rural hospital in the Lundi Reserve.

Apart from the above, planning of the Gwelo, Que Que and Marandellas projects continued with a view to a start early in the new year.

One very great advance in regard to buildings would be the vesting in this Ministry of the buildings which we occupy, together with the authority and the funds to make it possible for the hospitals to undertake their own urgent maintenance work and minor improvements instead of being dependent on an over-burdened and under-financed Public Works Department.

It is very difficult to persuade a surgeon that some formalities are necessary in order to achieve the replacement of a few tiles or the installation of a wash basin. The Public Works Department shows every consideration for our needs and can even perform seeming miracles at times, but the needs of hospitals are peculiar and urgent and I feel that a system which may be very economical and adequate for departments less concerned with urgency, sterility and round-the-clock availability is scarcely suited to a hospital.

STAFF

Details of the staff establishment of the Ministry and the numbers actually in post are given in Chapter V. Shortages of professional and technical staff have thrown a heavy burden on the present strength, which has been borne with patience and resignation, in the full knowledge that, in medical matters, the public is less interested in our problems than in the manner in which we provide a service. District Government medical officers have had to cover additional stations and wider areas owing to the absence of colleagues on leave for whom no relief could be provided. Some stations have been without medical cover for the whole or part of the year. Where possible the nearest medical officer has given such stations as much of his time as possible. In several instances, however, the continuance of the service at a remarkably high level has been possible only because of the efficiency and devotion to duty of some of our principal and senior medical assistants, who deserve much credit for their work.

There have, on the other hand, been brighter aspects of the staffing situation. The Medical Superintendent, Ingutsheni, reports that as a result of having a full staff of psychiatrists the turnover of his hospital was increased during the year. This is an example of how adequate staffing can effect savings in the direction of providing expensive accommodation and equipment. On the whole the main specialities have been fairly fully manned. The services of these skilled officers could, however, be made more use of if we had in our hospitals sufficient junior

medical staff to support and assist them. In this respect we still fall far below (in numbers if not in quality) the standards accepted in hospitals overseas.

During the year increased use has been made of the part-time services of private practitioners in both specialist and general-practitioner appointments. Additional sessional appointments have been made in specialist departments of both Harari and Mpilo hospitals. Private general practitioners are now participating in out-patient and domiciliary care of old-age pensioners and other Government responsibility cases in Bulawayo, prison medical services and casualty services. Sessional or part-time payments are made by the Ministry for these services. In Salisbury a group of general practitioners, through the medium of the local branch of the Medical Association, are rendering a very valuable and entirely voluntary service as night casualty officers at the Central Hospital. Early in the New Year participation by private practitioners in the medical care of children in school hostels is contemplated.

These arrangements have several advantages. Not only does the Ministry gain some releif for its professional staff but I feel that relations between the private medical profession and the Ministry can be improved by this mutual relationship.

During the year the medical profession in general and this Ministry in particular has suffered two grevious losses from among the most respected members of the profession in the country and from the honorary consultants who gave unstinting and invaluable service. Dr. J. E. A. David, Honorary Consultant Paediatrician in Bulawayo, died while attending a conference in England. Dr. G. A. Jamieson, Honorary Consultant Ophthalmologist, also in Bulawayo, died in Bulawayo towards the end of the year. The Ministry records deep gratitude for the services rendered to the community by these two distinguished doctors and expresses its deepest sympathy for their families.

One improvement in the consultant services which has been possible this year, partly as the result of the employment of additional sessional consultants, is the re-introduction of visits by the Ministry's full-time specialists from the central hospitals to general and district hospitals in other centres. These visits are of value both to the doctor at the periphery, by giving him the benefit of specialist advice and knowledge, and to the specialist, who is thus kept in touch with the realities of the practice of medicine and surgery outside the "ivory towers" of the central hospitals.

SUPPLIES

As I have already noted, the limitation of funds available for the service of the Ministry's units during the year has come dangerously close to interfering with the supply of the essentials of modern medical treatment. Any lack of necessary drugs, dressings and essential equipment has been largely avoided, but the purchase of new equipment and the replacement of equipment, and even such mundane items as hospital linen which has reached the end of its economical working life, has had to be rigidly controlled. As an economy measure the feeding of patients in rural hospitals had to be suspended, except in cases where (mostly in children) feeding was an essential part of treatment. Inevitable though it was, and in spite of the acknowledged fact that the service was being abused in many places where the local clinic had come to be looked upon as a free restaurant for

all and sundry, this measure was very unpopular with both patients and staff. It is unfortunate that it coincided with a year of crop failure because of drought. One hopes that with necessary safeguards and limitations feeding of patients can be restored during the next financial year—including the provision of the traditional Rhodesian breakfast in the hospitals where this too was suspended. However, the supply and replacement of necessary drugs and equipment, including linen, must take priority if funds remain limited.

One advance which was achieved during the year was the installation in Harari Hospital of an artificial kidney unit, a life-saving device in cases of severe renal failure. It has been installed in a special department of the hospital and, although not mobile, is available for patients of all races. It has been used on several occasions already with dramatically successful results in the majority of cases.

The cobalt source for the radiotherapy unit in Salisbury was replaced during the year. The Bulawayo unit will receive its replacement early in 1965.

Details of bed provision, staffing, admissions, deaths and out-patient attendances at the Ministry's central, general and district hospitals are shown at Appendix I. This table shows a reduction in the numbers of in-patient admissions and out-patient attendances of both European and African patients. Among the former this was merely a reflection of the drop in population. The annual hospital admission rate stands at 123 per thousand of population. This is loaded to some extent by the fact that patients from neighbouring territories come to Rhodesia for specialist treatment, but nevertheless this admission rate is considerably higher than the 80 per thousand current in most European countries. This cannot be because our young and healthy population suffers more ill health than the inhabitants of fog-bound Europe. Can it be that in Rhodesia it is both cheaper and more convenient to take one's minor ailment into hospital than to stay at home with it? The fall in African admissions and out-patients is no doubt associated with the introduction of charges for hospital services in the last quarter of the year. This has only a slight effect on admissions but a very marked effect on the size of the queues at out-patient departments. This has not caused hardship. It has merely eliminated the "social" visitors and loafers. The genuine patients and the staff are both agreed that a better service can now be achieved and offered.

The collection of this revenue has been undertaken with efficiency and tact by most hospitals. The hospital administrations can be forgiven for wishing, wistfully, that these revenues might be ploughed back into the finances of the service. The collection has undoubtedly put an added strain on the rather meagre administrative staff of the hospitals—some district hospitals depend entirely on African clerical assistants—and some reinforcement in this direction must be considered. Meanwhile existing staff are to be commended for their efforts.

One aspect of hospital services has in the past received special mention—the maternity services. The following table gives details of the work of maternity units and hospitals for the European, Coloured and Asian communities, including some non-Government units. A record of only one maternal death in 4,800 confinements is a good one.

NON-AFRICAN MATERNITY STATISTICS, 1964: GOVERNMENT HOSPITALS
1ST JANUARY, 1964 TO 31ST DECEMBER. 1964

Institution	No. of beds	Admissions	Maternal deaths	Confinements	Births		Deaths	Operations	
					Live	Still		Major	Minor
Bindura	6	258	—	258	229	25	4	33	6
Chipinga	2	46	—	36	37	—	—	2	6
Enkeldoorn	3	9	—	9	9	—	—	3	1
Filabusi	2	1	—	1	1	—	—	—	—
Fort Victoria	10	114	—	92	89	2	1	6	2
Gatooma and Queen Mary	10	114	—	102	102	—	—	10	16
Gwanda	7	26	—	20	20	—	—	—	1
Gwelo and Birchenough	18	328	—	270	270	1	2	3	67
Kariba	3	7	—	7	8	—	1	—	—
Lady Chancellor and Princess Margaret	72	2,474	—	2,297	2,277	20	23	235	340
Lady Kennedy and Umtali	19	278	—	250	248	5	2	18	30
Lady Rodwell and Richard Morris	48	998	—	851	848	15	15	167	264
Que Que	8	109	—	70	71	—	—	3	—
Rusape	6	49	—	48	48	—	1	3	1
Selukwe	2	6	—	6	6	—	—	—	—
Shabani	9	73	—	64	65	—	—	3	1
Sinoia	9	111	—	95	96	—	1	—	24
TOTAL	234	5,001	—	4,476	4,424	68	50	486	759
NON-GOVERNMENT HOSPITALS									
Mangula Nursing Home	4	22	—	22	22	—	—	—	—
Marandellas Maternity and Nursing Home	5	29	—	28	28	—	—	—	1
Mater Dei Hospital	20	258	1	258	259	5	2	24	66
Wankie Maternity Home	4	52	—	52	52	—	—	—	—
TOTAL	33	361	1	360	361	5	2	24	67

The records of African hospital maternity services cannot be fully collated but the details in respect of the Harari Maternity Hospital are as follows:

Admissions	9,893
Confinements	7,857
Live births	7,822
Still births	288
Maternal deaths	11
Infant deaths	429
Units maintained (mothers)	53,778
Antenatal cases	9,077
Antenatal attendances	31,977
Major operations	288
Minor operations	119

This is an excellent record as regards maternal mortality in view of the fact that a large percentage of the admissions are complicated cases.

The Mpilo Maternity Hospital has taken a particular pride in its baby unit and with good effect. A neo-natal death rate of only 16.1 per thousand live births is a record to be proud of in Africa.

It is noteworthy that both maternal and infant deaths are more common among "unbooked" cases who have paid no ante-natal visits to the hospital than among those who have attended ante-natally. This is to be expected, but it is a little disquieting to see that while the number of admissions to hospital has not

been reduced as a result of the introduction of charges there is a tendency for the proportion of booked cases to decrease. This may have something to do with the collection of fees at ante-natal attendances and is a tendency which needs to be watched.

The increasing popularity of the "ventouse" or vacuum extractor in obstetrics is interesting. One wonders why the invention of this simple, safe device was so long in coming.

The statistics relative to rural hospitals and health centres are to be found at Appendix II. The reduction, amounting to nearly 14,000 in the number of admissions to these units, is probably accounted for by the effect of the cessation of feeding. Out-patient attendances increased by about 200,000. Although it is no part of this Ministry's function to supply famine relief we have to bear the consequences of crop failures; it therefore seems inevitable that the provision of food for patients in these units, even if re-instituted on the basis of medical need, will be for all practical purposes on a 100 per cent. basis next year.

The future of the development of medical services at the rural hospital level needs to be appraised. When one considers the level of medical aid which *can* be provided at this level with the personnel and facilities available one wonders whether, in the past, too much money and attention has been given over to the provision of buildings, often at a unit cost which is inflated owing to distances from sources of materials and skilled artisans. Having frequently made a reasonable, if rough and unconfirmed, diagnosis and having dispensed treatment from the back of a land-rover with some apparent benefit, one takes leave to wonder whether there is any real virtue in the bricks and mortar of clinics or whether the same money could be better spent on the employment of more trained personnel who could bring timely medical and surgical first aid on a domiciliary basis to more people. A trained medical health assistant with basic training in both health education and in the treatment of common ailments, given a house to live in and a means of moving round a circumscribed area as a kind of "general practitioner" at village level, could probably do just as much, if not more, than some of our established clinics or health centres at considerably less cost, and in addition could do some preventive medicine instruction—more acceptable because it is coming from someone who is giving visible assistance.

It is apparent that further development of health services at this level must take place as a product of community development through local government. These services must therefore be simple but effective and within the powers of local committees to finance with the help of no more than 50 per cent. subsidies from Government. This kind of simple curative-educative service, combined with the provision of means of getting serious cases to more sophisticated care, seems to me to be the proper basis from which to start. Unfortunately the "clinic" has become a status symbol which it will be difficult to get rid of. Nevertheless it is only as a result of a revision of our ideas on these lines that we can hope to build up the "infrastructure" we need for the implementation of programmes to eradicate malaria, leprosy, tuberculosis, blindness, smallpox, intestinal and respiratory infections.

The indispensable factor in hospital services in rural areas is the work of the medical missions. A summary of the work performed by these units is shown in the following table with details at Appendix III.

MEDICAL MISSIONS, SOUTHERN RHODESIA

Number of missions	1962	65
	1963	64
	1964	64
Admissions	1962	106,190
	1963	94,496
	1964	111,389
In-patient units	1962	1,449,975
	1963	1,230,244
	1964	1,373,674
Deaths	1962	1,763
	1963	1,708
	1964	2,224
Number of out-patients	1962	485,645
	1963	520,766
	1964	516,686
Out-patient attendances	1962	1,680,063
	1963	1,821,361
	1964	1,950,405
Staff:		
Medical	1962	29
	1963	29
	1964	28
Nursing	1962	132
	1963	137
	1964	127
Auxiliary	1962	231
	1963	310
	1964	245
Approved beds	1962	3,000
	1963	3,018
	1964	3,061
Actual beds	1964	3,832

It will be noticed that mission hospitals handle 25 per cent. of the total African in-patient admissions in the country. As far as rural areas are concerned they handle nearly 50 per cent. of African in-patients. It is also a fact that for a number of reasons they can provide this service at considerably less cost than Government can. It is, therefore, a matter of much regret that owing to restricted finances it has not only been impossible for the Ministry to finance any expansion of mission medical services, it has even proved impossible to subsidize to the full extent of the agreed formula the services already being provided. It can of course be said that missions provide medical services for ulterior, if praiseworthy, motives. This does not alter the fact that without the service the Ministry would be hard pressed to fill the gap.

The table below summarizes the contribution made to the hospital services of the country by industrial undertakings, mainly mining companies.

MINING MEDICAL SERVICES STATISTICS, 1st JANUARY, 1964, TO 31st DECEMBER, 1964

Europeans employed	2,383
Africans employed	20,357
Hospital beds:	
European	49
African	1,089

Admissions:	
European	1,033
African	21,709
Out-patient attendances:	
European	31,572
African	306,826
Occupational accidents:	
European	670
African	6,162
Medical officers:	
Full-time	8
Part-time	21

Credit must be given in the main to the mining industry of Rhodesia, particularly to the older-established concerns, for the way they have shouldered their responsibilities in providing medical care for their employees and their dependants. Concerns such as Wankie Colliery, Shabanie Mine, Mangula and Alaska Mine are examples of this enlightened attitude. It is matter of regret that other, more-recently established industries have preferred to "sit down by the waters (of Babylon) and weep" for Government to provide these services for them.

In 1963 the Federal Government, not without good reason, discontinued the very expensive Government district nursing service. Although not used to a degree such as to render it worthwhile and economic while it existed, this service was immediately missed when it was abolished and the suggestion that communities should establish their own services and look to Government for assistance only with the financing of the service was slow to be accepted. Nevertheless, a few farmers' associations and other local groups have established their own services and a formula for assistance towards the net costs has been worked out.

A very important aspect of hospital services is the availability of a ready supply of safe blood for transfusion purposes. In Bulawayo the very well organized District Transfusion Service supplies the need for blood for all races at a cost which though low in comparison with that charged by similar services elsewhere is a formidable item in the expenditure of Mpilo Hospital. In Salisbury, blood for European, Coloured and Asian patients is supplied by an organization similar to that in Bulawayo but, save in occasional emergencies, the needs of Harari Hospital for blood for African patients are met by the laboratory and medical staff of the hospital itself with the very valuable assistance of the Red Cross. In other centres various arrangements exist, mainly organized by hospital personnel.

There is generally little difficulty in obtaining European donors. Africans are, however, still reluctant as a group to donate blood for their fellow men, and it has frequently been considered necessary to have recourse to the "bank" of European blood in order to save the life of an African patient. This practice has its inherent dangers in view of the considerable disparity in the occurrence of cellular antigens in the bloods of the two races. It is, therefore, incumbent on the African population, for reasons which are entirely medical and not racial in the generally accepted sense, to come forward as donors of blood for their own hospitals. The demand will progressively increase as hospital services develop. The commissioning of the teaching hospital in Salisbury will almost double the demand. Advanced techniques appear to increase the need for blood. A dialysis with the artificial kidney, or a cardiac operation, requires 10 or 11 pints of blood.

Another aspect of the changing pattern of medical services in this country is the gradual advent and increase of the geriatric problem. Not only relative to

the total population, but also in actual numbers, the aged and infirm are on the increase at a rate which is in excess of the growth of facilities to cope with them. Unfortunately it has not been possible for the Ministry to provide more money to subsidize expansion by voluntary agencies of their facilities for the care of the aged and infirm, with the result that many such people who could be well cared for in suitable accommodation in geriatric units run by such agencies have to be admitted to hospital beds. This in the end costs both the Ministry and the patient more than would the subsidies mentioned above. An expansion of geriatric services is required, but this expansion must be on the basis of an active effort to rehabilitate the elderly patient and not merely to consign him or her to a comfortable scrap heap. In older civilizations remarkable advances have been made in this field of medicine, as a result of sheer necessity. In Rhodesia we must soon start to apply the lessons learned elsewhere to our own situation.

Finally, as regards the services concerned with the care of the sick and injured, mention must be made of ambulance services—a subject which, understandably, is capable of generating much emotion. The Ministry maintains a limited fleet of ambulance cars because it is frequently necessary to transfer patients from one hospital to another. The Ministry, like other health ministries almost anywhere in the world, cannot and does not attempt to assume responsibility for the provision of emergency ambulance services for local communities. This is an accepted responsibility of local authorities, recognized by several, but not all, local authorities in Rhodesia. This is not so say that central health authorities should not assist where possible. Therefore, the ambulance cars of the Ministry will answer emergency calls when they are not already out on other duties, but, as frequently in the past ambulances have been used as convenient free taxi services, charges are now levied for the use of the Ministry's vehicles for this purpose.

There exist already in Rhodesia, particularly in urban areas where they are most needed, sufficient ambulances to provide a service able to cover all but the most unlikely emergencies. What is needed is a means whereby these ambulances can be controlled and co-ordinated.

CHAPTER IV

LABORATORY SERVICES

An account of the work of the Ministry's laboratories has in the past been given in the chapter of the annual report devoted mainly to preventive services. I feel, however, that the increasing importance of laboratories to the practice of modern medicine makes these units worthy of a chapter of their own, albeit a short one.

The work of the Bilharzia Research Laboratory has already been discussed above. The laboratories concerned with clinical and public health investigations will be considered here.

The Ministry and the public have been well served by its laboratories during the year. We have had a full staff of pathologists and although in number they may be small, their quality is indicated by the volume of the work they achieved and the high standard of service they provided for the hospitals. One of these specialists was absent on study leave for a goodly portion of the year, an absence which was well justified when he was accorded the signal and unusual honour of being granted the Diploma of Membership by the College of Pathologists without having to sit the prescribed examination.

The situation has been otherwise as regards laboratory technologists. These indispensable men and women are in short supply the world over and we appear to be unable to attract and retain them with the conditions of service we offer to recruits from overseas. Our own output of trained technologists cannot keep pace with our needs. The advent of the medical school will increase the demand for laboratory workers while also, it is hoped, contributing to the training.

The clinical laboratory is today one of the most important departments of a hospital service. An efficient laboratory, capable of carrying out the multitudinous and advanced investigations that modern medicine demands, can influence profoundly the efficiency and turnover of the hospital it serves and therefore the level of efficiency of bed utilization. Our laboratories are, on the whole well equipped and during the year some considerable improvements have been made to the premises in which they are housed, notably at Harari, but buildings and equipment and supervisory professional staff cannot in themselves produce a good laboratory. Skilled technologists in sufficient number are needed to turn out accurately and consistently the standard of work which is essential when human lives may depend on it. The depleted staff of our laboratories are to be congratulated on the manner they have applied themselves to their heavy task, but it is obviously necessary for consideration to be given to ways and means of improving recruitment in this field.

The summary of the work of the main clinical and public health laboratories is to be found at Appendix IV. This represents an increase of nearly 35,000 investigations as compared with last year. This continued increase is in keeping with trends elsewhere. It is said that the floor space and facilities devoted to clinical laboratories before the last war have to be multiplied by ten to provide for modern requirements.

The Ministry is indebted to the staff of the Department of Pathology of the medical school for considerable assistance with laboratory services during the year.

Special mention has to be made of the work of the Government Analyst's Laboratory in Salisbury. This laboratory has been particularly badly handicapped by shortage of professional and technical staff. In this modern world skilled chemists are in great demand and such valuable personnel would be foolish indeed if they were not attracted by salary conditions considerably more attractive than we have offered here. The following table summarizes the work done by the Government Analyst's Laboratory:

NUMERICAL SUMMARY AND ANALYSIS

	Samples		*Tests*	
Exhibits in connexion with criminal investigations				
Toxicological	803		1,406	
Bloodstains and blood grouping	343			
Seminal stains	314			
Miscellaneous forensic and illicit liquors	36		3,360	
		1,496		4,766
Waters				
Domestic supplies from boreholes, wells, etc.	52		613	
Government establishments, Government boreholes, schools and missions	48		656	
Municipal, township, hotel and community supplies	106		1,538	
Industrial and boiler use	29		422	
Central African Power Corporation	42		98	
Fisheries Research (Lake Kariba and others)	13		287	
Suitability for concrete	2		10	
Swimming baths	3		15	
River, lake and underground pollution (mainly arsenic)	136		402	
Special investigations (corrosion, etc.)	52		263	
		483		4,304
Sewage, effluents and trade wastes		27		296
Cow's milk		122		375
Dairy produce		69		240
Foods		262		1,433
Customs control and Excise		250		1,385
Clinical		68		211
Drugs and chemicals		65		292
Insurance claims (including Lloyds)		27		109
Currency claims (Reserve Bank of Rhodesia)		47		249
Samples from Central Road Laboratory		15		90
Samples from Government Central Stores		4		13
Oils		16		83
Samples in connexion with atmospheric pollution (Central African Petroleum Refinery)		63		131
Miscellaneous		279		785
TOTAL		3,293		14,762

Even this formidable total carried out by six professional officers and two technologists does not give a true picture of the volume of work done and of its economic importance to the country. The following examples chosen at random from thousands may serve to illustrate the variety of the work undertaken:

The examination of human brains for alcohol content in fatal road accidents.

The examination of stains, including blood stains, for police purposes.

Examination of samples of illicit liquors.

Identification of poisons.

Examination of food samples for signs of adulteration or excess of preservatives.

Examination of various products in order to protect the public against advertising claims.

Examination of numerous samples of materials ranging from deodorants to soya beans for Customs classification purposes.

Examination of drugs for purity and British Pharmacopea standard.

Examination of damaged materials to assess insurance claims.

Examination of burnt or otherwise defaced currency to determine value (in this connexion the Analyst's faith in human nature is sometimes severely shaken when claims are compared with facts).

Examination of a variety of commodities on behalf of Government departments ranging from blankets to fencing wire.

Other items examined were oils for transformers, boiler scale samples, soil samples, sewage gas, corroded pipes, flash powder, babies' teething rings, whisky, hessian, eland milk and elephant faeces !

In short, it is apparent that this laboratory is actually attempting with considerable success to provide a bureau of standards for the country.

This work is of great economic importance. The time is not far distant when a special organization to cope with this kind of demand will be required. Meanwhile it is essential that the Analyst be provided with the number and quality of the staff he needs and steps will be taken to make recruitment more likely to succeed.

CHAPTER V

PREVENTIVE SERVICES

The boundaries by which the country is divided into provinces for public health purposes were realigned during the year to correspond with those proposed for the Ministry of Internal Affairs' administrative services, it being considered that overlapping of such boundaries would complicate administration, particularly in respect of the Government's policy of community development through the formation of local authorities. This realignment involved transfer of some staff from one provincial medical officer of health to another.

The preventive health services have in the past and are in the present the "Cinderella" services, supported by only about 10 per cent. of the total health budget. Never was so much insincere lip service given to any philosophy as is to that of "Prevention is better than cure." This is understandable. In the build-up of any health service the obvious must be attended to first, and hospitals can be *seen* to save more lives than preventive services. It is little consolation to a man with malaria to know that steps are being taken to prevent others from getting it. However, the time has surely come to make real efforts to stop the colossal waste of money incurred by the treatment of preventable disease. Unfortunately a serious start on this requires the injection of additional funds, because miracles cannot be performed overnight and preventive services take a little time to produce their undoubted dividends. Meanwhile the demands of the hospitals remain unabated and must be met because the sick and injured cannot be turned away.

In spite of shortages of funds for this side of the service good progress has been made during the past year and in other recent years, largely because of the increasing involvement of provincial medical officers and their staff at all levels in the control and treatment of tuberculosis, the campaign against blindness and various other activities which have brought about, at least at the periphery, some integration of curative and preventive services. This has not yet gone far enough and it is obvious that a new look at the functions of the professional staffs of health offices is required and that they should more and more take over the function of supervision, extension and co-ordination of all health services in rural areas, whether these be developed by Government or, as is intended, by local authorities of various types working within the general policy framework of community development. It is in the rural areas that the main health problems exist; it is there that they must be tackled. The treatment of a minor ailment in the village may well prevent the need for treating a major illness in the central hospital. The development of rural health services on the lines of a simple infrastructure consisting of workers trained to treat simple illness and injury, as well as to educate, has already been described. Another important function of such personnel would be the supervision and treatment of tuberculosis out-patients, leprosy out-patients, eye infections and the administration of prophylactic agents such as B.C.G. vaccine, smallpox vaccine, whooping cough and diphtheria prophylactic, polio vaccine and measles vaccine when it is available in suitable form. The sort of worker needed for this job is the health assistant with additional training in treatment, and the medical assistant with additional training in prevention and health education. These men (and women) do not require clinics to work in. They need a decent place to live and a means of getting about their local areas of "practice". They will need to be supplied, supported and supervised. This is the role of the provincial

medical officer of health and his staff. As supervisory staff health inspectors and field officers already exist. There might be a need to reinforce these by employing, as "medical inspectors", male state registered nurses who, in my experience, proved very useful in a similar role in Northern Rhodesia.

The work of health assistants has undoubtedly been stimulated by their new duties and many favourable reports regarding their diligence and devotion to duty have been received and appreciated. These men will achieve even greater status and appreciation when they are able to give immediate assistance to sick and injured.

The work of our little band of health inspectors goes on with quiet efficiency. They have had a hard year, being short staffed and being faced with smallpox outbreaks in every province but one. The following table gives some idea of the volume and variety of the work carried out by these officers:

Smallpox	
Vaccinations. All races	930,217
Suspect cases. Investigated	149
Bilharzia	
Areas investigated for snails	41
Urine specimens collected	182
Malaria	
Areas inspected for mosquito breeding	260
Buildings and huts sprayed	7,060
Blood slides taken	2,464
Poliomyelitis	
Cases investigated	27
Doses oral vaccine administered	785
Leprosy	
Cases investigated (African)	63
Meningitis	
Cases investigated (A)	8
Typhoid fever	
Cases investigated (E and A)	115
Stool, urine and blood specimens taken	361
Diphtheria	
Cases investigated (A)	141
A.P.T. and P.T.A.P. administered	1,101
Tuberculosis	
Cases investigated: European, Asian and Coloured	89
African	802
Cases X-rayed	970
Heaf and Montaux tests	9,875
B.C.G. vaccinations	140,554
Trypanosomiasis	
Cases investigated (E)	5
Gastric enteritis	
Cases investigated	8
Food poisoning	
Cases investigated	137
Town planning	
Surveys at proposed and existing townships	22
Plans examined and reported on	438

Food	
Inspections and sampling	261
Water	
Investigations and sampling for bacteriological and chemical examination	965
Notices served on prosecutions	115
Licensed premises inspections	422
Miscellaneous inspections	
General dealers, butcher shops, dairies, etc.	13,487

The limited promotion prospects available to health inspectors following the break-up of the larger Federal area was recognized during the year by the creation of a number of promotion posts on a senior grade at stations where the Government health inspectors, not being under continuous supervision of the provincial medical officer of health is considered to have a higher degree of responsibility.

A recent development in the activities of the preventive services in rural areas and an important one is the establishment, on a modest scale so far, of mother and child welfare services and "well-baby clinics". Through this medium an attack can be made on one of our most serious health problems—infant malnutrition in its various forms.

In the field of community sanitation perhaps the greatest advance in recent years has been the rejection of the complicated, expensive and often inefficient sewage purification plant of concrete and steel and the adoption of the simple, cheap and effective stabilization pond, ideal for our sunny climate and another long overdue product of common sense. Its advent has made possible the provision of water carriage systems of human waste disposal in small townships where this would have been hopelessly expensive in the past. It is to be hoped that this development may indirectly stimulate a further attack on some of the grossly insanitary slums which still exist in the form of illegal "locations" in some of our peri-urban areas.

SCHOOL MEDICAL SERVICE

The work of this branch of the service has been severely handicapped this year by shortage of medical officers on the provincial health staffs. However, it is possible that this has proved a blessing in disguise. In the absence of the inspecting doctor, school nruses have stepped into the breach and have carried out very satisfactorily many of the routine aspects of school medical inspections. With a high standard of personal medical service available to the European population the standard of health of schoolchildren is very high, and undiagnozed and untreated defects are found at school inspection only rarely. There is more need for this supervision in schools for Coloured and Asian children. So far no serious attempt has been made to mount a school medical service for African schools. The cost of such a service would be formidable and, of course, there is no statutory obligation on Government to provide it as education is not compulsory for the African.

A summary of the school medical inspections performed and the findings thereof is to be found at Appendix V.

It is for consideration whether in future more use should be made of trained nurses for routine school inspections with referral of doubtful cases to medical

officers. The medical officers relieved of some rather tedious routine could then give more time to more urgent public health matters.

GOVERNMENT DENTAL SERVICE

All centres were staffed with professional officers as regards this section of the service during the year. The work performed by the Government dental surgeons is summarized at Appendix VI. This summary demonstrates the fallacy of the idea current in some quarters that the work of these officers is confined to the dental inspection of school children. A post of Senior Dental Surgeon was created during the year in recognition of the additional administrative responsibility of the senior man at Bulawayo. A dental service for student nurses was initiated and steps taken to institute a scheme for the training of African medical assistants in simple emergency dentistry, so as to enable them to provide for the relief of suffering in district and rural hospitals and clinics where no more sophisticated dental service exists. Talks and films on dental care were presented to schools during the year.

LOCAL AUTHORITY HEALTH SERVICES

The local authority areas of Rhodesia are fortunate in having progressive health departments which achieve a high standard of environmental health service, together with health education and clinic services. The table hereunder summarizes the work of local authority health staff and institutions.

LOCAL AUTHORITY HEALTH SERVICES

	Salisbury	Bulawayo	Gwelo	Gatooma	Que Que	Umtali
Estimated population:						
European	45,000	39,000	6,600	2,200	2,500	9,000
Asian and Coloured	5,400	4,300	560	110	200	900
African	110,000	143,750	29,910	12,660	8,000	35,000
Admissions:						
European infectious diseases hospital	844	307	159	N/A	Nil	330
African infectious diseases hospital	1,956	1,632	297	2,318	N/A	1,786
African venereal diseases hospital	401	901	Nil	280	N/A	813
Number of beds: European	47	48	12	N/A	N/A	20
African	337	302	38	120	N/A	200
Attendances:						
African venereal diseases clinic	1,185	6,835	13,833	5,270	Nil	1,052
New cases of syphilis in Africans	267	797	1,308	201	N/A	92
New cases of gonorrhea in Africans	507	1,931	1,723	79	N/A	150
Medical examination of Africans in employment	64,197	6,987	9,125	2,109	N/A	4,968
Cases of ante-natal and child welfare centres (all races)	73,732	69,912	9,583	4,630	6,442	17,147
Diphtheria immunization	1,919	20,275	4,563	414	N/A	615
Poliomyelitis immunization	11,206	17,308	4,276	352	500	797
Smallpox vaccinations	91,940	123,215	14,517	1,797	9,780	11,304
BCG vaccinations	14,652	2,974	1,573	92	Not known	Nil
Number of X-ray examinations carried out	69,117	54,705	14,623	Not known	Not known	Nil
Visits by health visitors (all races)	15 959	6,546	4,860	Nil	N/A	412
Inspections by health inspectors	29,523	43,712	Not known	2,904	1,450	4,367
Staff:						
Medical officers (full-time)	4	5	Nil	Nil	Nil	Nil
Medical officers (part-time)	Nil	Nil	1	1	1	1
Health inspectors	12	6	3	2	1	2
Health visitors	5	7	2	Nil	Nil	1
Qualified nurses	28	27	9	3	1	8
Qualified nursing orderlies	78	95	16	17	3	12

In the direction of clinic services, which perform a very useful preventive and educative as well as a curative function, several local authorities would like to expand their services. It has been a matter of some regret that finance has not permitted the Ministry to encourage this development.

The infectious diseases hospitals operated by local authorities are nowadays not occupied to anything like their full capacity, owing to the welcome decline in the incidence of infectious disease calling for hospital isolaton. These hospitals still perform a useful function on a regional basis.

After discussions with representatives of the Salisbury Municipality it was decided to set up a Committee of Inquiry into the utilization of all hospitals in Salisbury, with the object of rationalizing the use of available hospital beds and correcting the present situation where some hospitals are more than half empty and others overcrowded. This committee will report early in 1965. The role played by Municipal isolation hospitals in the campaign against tuberculosis had been important and welcome. It is now diminishing as emphasis and incidence shifts from urban to more remote rural areas.

There are a number of peri-urban local authorities in the Salisbury and Bulawayo districts which, though they have responsibilities under the Public Health Act, employ no health staff with which to discharge these responsibilities. They therefore depend on Government health staff to assist them. The increasing responsibilities of such staff, coupled with the chronic shortage, is making the provision of such services difficult, and it may well be necessary for the Ministry to call on these authorities to appoint their own staff, perhaps on a co-operative basis.

The relationship between the local authority health departments and the offices of regional medical officers of health has been good and co-operation has been excellent.

CHAPTER VI

ADMINISTRATIVE AND MISCELLANEOUS

As stated in the introduction to this report, the break-up of the Federation caused an upheaval, during which Southern Rhodesia lost a number of useful staff from its health services. At the same time a number of excellent men and women transferred to us from the northern territories. The following table summarizes the position:

Category	*Left at 1.12.63*	*Transferred to Southern Rhodesia from Northern Rhodesia and Nyasaland*	*Net loss*
Specialists	16	8	8
Medical officers	23	4	19
Pharmacists	6	4	2
Analytical chemist	1	1	—
Research officers	2	—	2
Health inspectors	4	1	3
Laboratory technologists	8	3	5
Radiographers	2	1	1
Matrons (all grades)	13	4	9
Other trained nursing staff	37	3	34
TOTAL professional and technical staff	112	29	83

The loss of a net 83 professional and technical staff from a small service such as ours was grievous indeed, and it is all more credit to those who remained that they were able to keep the service going. The public did not, in fact, realize how serious the situation was, because of the manner in which the "survivors" shouldered their extra burdens. It will now perhaps be appreciated why the many rival claims for medical officers, who did not exist, could not be satisfied.

Since 1st January, 1964, the following resignations and engagements have taken place:

	Resigned	*Engaged*	*Net Result*
Professional officers	9	7	− 2
Scientific and technical officers	9	22	+13
Nursing officers	63	86	+23

The authorized staff establishment of the Ministry, together with details of occupied posts at 31st December, 1964, is shown in the following table:

STAFF ESTABLISHMENT

	Posts authorized	*Number in post at 31st December, 1964*
HEADQUARTERS:		
Secretary for Health	1	1
Deputy Secretary for Health	1	1
Senior Medical Officer	1	—
Chief Pharmacist	1	1
Assistant Secretary	1	1
Finance Officer	1	1
Pharmacist/secretaries	3	2
Chief Clerk	1	1
Accountants	2	2
Matron-in-Chief	1	1
Senior clerks	3	3

	Posts authorized	*Number in post at 31st December, 1964*
HEADQUARTERS (Cont.)		
Sub-accountants	5	5
Administrative, executive and clerical	69	69
Other	8	7
MEDICAL STORES:		
Controller (Pharmacist/Secretary)	1	1
Pharmacist/secretaries	7	7
Sub-accountant	1	1
Technical assistants	3	2
Administrative, executive and clerical	20	18
Other	32	
BILHARZIA RESEARCH AND CONTROL:		
Director	1	1
Senior Research Officer	1	1
Research Officer	1	1
Laboratory technicians	8	7
Field officers	10	10
Clerical	3	3
Other	10	
MALARIA ERADICATION ORGANIZATION:		
Malariologist	1	1
Research Officer	1	—
Medical Entomologist	1	—
Field officers	15	10
Laboratory Technicians	2	1
Clerical	3	2
Other	11	
PREVENTIVE SERVICES:		
Provincial medical officers of health	4	4
Medical officers of health	7	6
Provincial health inspectors	6	6
Senior health inspectors	5	5
Health inspectors	12	7
Field officers	4	4
School nurses	2	2
Clerical	7	7
Other	250	
GENERAL SERVICES:		
Directors of public health laboratories	2	2
Medical superintendents (£3,250)	5	5
Medical superintendents (£2,950)	2	2
Medical superintendents (£2,650)	7	6
Government medical officers	69	60
Aided government medical officers	5	5
Junior and senior resident medical officers and registrars	30	21
SPECIALISTS:		
Grade: £3,250		
Anaesthetics	2	1
Obstetrics and gynaecology	2	2
Medicine	2	2
Tuberculosis	1	1
Radiology	5	4
Ophthalmology	2	2
Surgery	4	3
Grade: £2,950		
Otorhinolaryngology	1	1
Anaesthetics	5	4
Paediatrics	1	1
Pathology	4	4
Medicine	3	3
Psychiatry	3	2

	Posts authorized	*Number in post at 31st December, 1964*
Grade: £2,950 (cont.)		
Surgery	3	2
Tuberculosis	1	1
Radiology	2	1
DENTAL OFFICERS AND STAFF:		
Chief Government Dental Surgeon	1	1
Senior Government Dental Surgeon	1	1
Government dental surgeons	8	7
Dental technicians	3	3
Dental attendants	5	3
PROFESSIONAL AND TECHNICAL STAFF:		
Analytical chemists	6	4
Pharmacist/secretaries	34	32
Physicists	2	2
Laboratory technicians	43	39
Cardiographer	1	—
Radiographers	36	36
Student radiographers	24	24
Physiotherapists	15	12
Dietitians	3	2
Occupational therapists	3	2
Catering officers	4	4
Orthopaedic technicians	2	2
NURSING:		
Matrons, Grade A	4	4
Matrons, Grade B	6	6
Matrons, Grade C	32	25
Sister tutors	16	12
Clinical instructors	8	8
Senior sisters	106	91
Sisters	541	409
Senior sisters (mental)	8	5
Sisters (mental)	39	21
Chief male nurses	2	2
Charge male nurses	7	7
Male mental nurses	33	25
Male general nurses	2	2
Student nurses	716	588
Trainee midwives	30	30
Medical inspectors	2	2
ADMINISTRATIVE, CLINICAL AND EXECUTIVE:		
Sub-accountants	4	4
Clerical	218	209
MISCELLANEOUS:		
Medical health assistants, etc.	710	
Laundry superintendents	5	
Storemen	7	
Orthopaedic mechanicians	4	
Gardeners	3	
Stewards	1	
Farm Manager	1	
Orderly stewards	38	
Housekeepers/kitchen assistants	39	
Linen supervisors	6	
Seamstresses	13	
Other staff (drivers, ward hands, office orderlies, etc.)	2,340	

A further analysis of professional and technical posts and their occupants reveals the following position:

	Authorized posts	Filled by— Permanent officers	Temporary officers	Contract officers	Vacant
Professional	243	137	68	7	31
Scientific and technical	156	97	29	3	27
Nursing	929	376	398*	17	138†

*Includes 52 nursing staff on an hourly-paid basis.

†Forty-four of these vacancies are occupied by untrained or partly trained ward attendants.

It is a fact that since the 1st December, 1963, we have not recruited a single permanent medical officer in the general practitioner grade from an English-speaking university. This must be the answer to anyone who thinks we can fill our medical vacancies by recruitment and do not need a medical school.

There is a further disquietening feature of the present situation. At 31st December, the following officers were serving on the basis of provisional transfer, which means that we may lose them at any time after 31st December, 1965:

Specialists and medical officers	41
Pharmacists	15
Analytical chemist	1
Dental surgeons	5
Nursing staff	49
Administrative staff	13
Others	2

The officers who have most to gain by taking terminal benefits are those with long service and, therefore, the most experienced and valuable. We, therefore, stand to face crippling losses of irreplaceable staff unless we can convince them of a better future in this service than they can find elsewhere. We must face the fact that money talks, and we are not talking loud enough here. But other factors count as well—congenial working conditions, good equipment and facilities, adequate assistance, understanding and imaginative administration.

The following improvements must be sought without delay:

(a) The improvement of the prospects of experienced specialist staff who are now on fixed salaries and have to wait for promotion to get more, in spite of the fact that experience increases their value.

(b) The improvement of salaries of student nurses and trained nursing staff to bring them at least into line with other trainee groups and with non-graduate schoolteachers respectively. These comparisons are completely valid and must be recognized.

(c) Improvement in the prospects of those medical officers who enter the preventive medicine field, and who at present have no inducement to do so.

One improvement effected during the year, but not implemented at the end of it, was the introduction of a promotion grade of district medical officer applicable to the medical officer with responsibility for a district hospital. This scale offers a reasonable living to the doctor who wishes to remain in this most essential sector of the service and has no private practice income to supplement his earnings.

It is suggested from time to time that more use could be made of part-time medical and nursing staff. A good deal has been done in this direction, but there is a point beyond which part-time employees with other commitments cannot be relied upon to man a service which has to operate 24 hours per day, seven days a week and there is, therefore, an irreducible minimum of full-time staffing at all

levels. There is no intention to reduce this below its present level. Nevertheless, we are grateful to those who have helped us over difficult places by giving their services on a part-time, often honorary, basis.

As regards African staff who are, after all, the mainstay of the rural health services, the most urgent need is to improve their housing conditions. The African staff of this Ministry is in general very poorly housed in comparison with the staff of other ministries. This affects adversely the status and therefore the influence of these personnel.

It is pleasing to note that the grant of study leave for post-graduate training has now been restored, and we have been fortunate also in obtaining a number of fellowships from the World Health Organisation, which have enabled officers of the Ministry to travel and undertake further training in specialized fields.

REGISTRATION

The table below shows details of the numbers and categories of medical and paramedical professional men and women whose names appear on the registers maintained by the Medical Council of Rhodesia.

REGISTRATIONS WITH MEDICAL COUNCIL OF SOUTHERN RHODESIA AS AT 31st DECEMBER, 1964

	Number on Register
Medical practitioners	874
Medical practitioners (temporary registration)	40
Medical practitioners (provisional registration)	22
Medical practitioners (especially exempted from registration)	23
Dental surgeons	143
Dental surgeons (temporary registration)	5
Dental Surgeons (especially exempted from registration)	5
Chemists and druggists	353
Chemists and druggists (temporary registration)	4
State registered nurses (general)	4,008
State registered nurses (mental)	110
State registered nurses (general) (especially exempted from registration)	137
Fever nurses	100
Maternity nurses	230
Midwives	1,372
Midwives (especially exempted from registration)	16
Opticians	47
Opticians (temporary registration)	1
Physiotherapists	47
Radiographers	8
Medical laboratory technologists	25
Health inspectors	108
Meat and other food inspectors	100
Medical assistants	1,225
Health assistants	218

During the year, on the advice of the Medical Council, an amending Act was introduced and passed which had the effect of modifying a Federal Government amendment to the Medical, Dental and Allied Professions Act of Rhodesia. The Federal Act had introduced provision for registration on a permanent basis of doctors holding degrees, other than the British and Commonwealth (and South African) degrees, normally acceptable by the Council for registration. The 1964 amendment modified this by putting the registration of foreign degrees on a provisional basis, subject to confirmation in three years. The Council has been intimately concerned with the various changes to its rules occasioned by the modification of training programmes which will now be described.

TRAINING

GENERAL NURSE TRAINING

This has continued at the four nurse-training schools as heretofore on the lines prescribed by the Medical Council's Nurse Training Rules, 1961. During the year, however, new rules were prepared and discussed which will take effect from 1st January, 1966. These rules will have the effect of—

(a) increasing the educational standard required for nurse training to that of the equivalent of a G.C.E. "O" level pass in English, and at least one other subject;

(b) decreasing the period of training to three years;

(c) modernizing the training syllabus.

All these changes are necessary to bring our nurse training into line with the amended requirements of the General Nursing Council and so retain recognition of the Rhodesia nursing certificate by that Council for registration in Great Britain. In any case, the wastage among student nurses, most of which is due to students falling short of the standard of attainment required by this exacting profession, in itself called for a revision of entry standards.

Various improvements, including the appointment of clinical tutors, the introduction of study days (the block system is not yet possible with our existing staffing level), and a gradual change-over to the new syllabus were also introduced during the year.

It will no doubt be asked why we should strive to retain reciprocity with the United Kingdom as regards nurse training. The simple answer is that if we do not, we will not get any student nurses, at least in our European hospitals, as candidates will not be interested in a qualification which has no status outside our borders. Our European girls would have no difficulty in finding places elsewhere as the whole civilized world is crying out for nurses. Without student nurses we cannot staff our main hospitals. Efforts have also been made to improve the lot of the student nurse by removing domestic chores from her work, particularly dangerous chores like the sluicing of infected materials. Efforts are also being made to improve the living conditions of students, particularly at Salisbury Central Hospital, and to bring pay conditions into line with in-service trainees in other spheres.

The training of male nurses was started for the first time at Mpilo Hospital during the year. The trainees have to live out because of lack of suitable accommodation, but this is the only limitation to a programme which appears to be progressing quite well.

The training hospitals enjoyed a short visit from Miss Henry, Registrar of the General Nursing Council, who gave much helpful advice and encouragement.

Progress reports on improvements in hospital accommodation and routine and the appointment of tutorial staff are sent periodically to the Council.

The record of the training school for the year is as follows:

	Salisbury	*Bulawayo*	*Harari*	*Mpilo*	*Total*
Commenced training 1964 . .	47	60	59	58	224
Discontinued training . . .	50	28	17	23	118
Completed training . . .	40	33	29	21	123
In training 31.12.64 . . .	133	124	166	174	597

MIDWIFERY TRAINING

This continued for registered nurses only at Harari and Mpilo maternity hospitals and received a great stimulus towards the end of the year from a visit by Miss Farrer, Matron of Forest Gate Hospital and official visitor on behalf of the Central Midwives Board, with whom we have been corresponding for some time regarding recognition of this training. Miss Farrer was frankly impressed with the standard of the work, which she compared with that of the United Kingdom training units. As a result of her visit and report to the Board it is confidently hoped that the Rhodesian certificate will be accepted as at least equivalent to the Part I, C.M.B. Certificate, and there is hope of even further recognition later.

Twenty-two midwives have been trained at Harari and Mpilo during the year.

ENROLLED NURSES

Regulations and a syllabus for the training over a period of two years of candidates for a roll of nurses were completed during the year. This training is to be entirely practical, and will be undertaken at Gwelo and Umtali hospitals. The educational standard hitherto required for S.R.N. training will be required for pupil nurses of this category. The need to train such staff for dilution of S.R.N. staff in European hospitals has long been recognized, as it is in hospitals overseas where enrolled nurses are an established section of the hospital community.

MENTAL NURSES

A start has been made with the preparation of regulations and syllabus of training for mental nurses to be undertaken at Ingutsheni.

LABORATORY TECHNICIANS

This important, indeed indispensable, training programme continued in spite of the strain it places on overworked, trained technologists. During the year two candidates passed the intermediate examination and four the finals. Recognition of the Medical Council's certificate by the Council for the Registration of Professions, Other than Medicine, in the United Kingdom, is being sought with confidence in the knowledge of the high standard of the training and examinations.

As indicated training of technologists will have to be stepped up to meet the needs of the medical school and teaching hospital. A number of additional laboratories of adequate standard have been accepted by the Council as main and subsidiary laboratories for training purposes.

RADIOGRAPHERS

Nine student radiographers passed the final examination of the Society during the year. Our training programme in Bulawayo will no doubt miss Dr. Palmer, who has left us to take up the Chair of Radiology at Cape Town. Both training units are, however, fortunate in having efficient and dedicated superintendent radiographers to assist the radiologists with this training. Twelve students were successful in Part I of the examination.

HEALTH ASSISTANTS

In anticipation of a more important role to be played in the development of rural health services and in community development by health assistants, changes have been and are being made in the regulations and syllabus of training for these personnel. In the first place, the educational standard has been raised to Junior Certificate level in order to keep these men on a par with workers in other development spheres. Secondly the content of the training is being altered to include instruction in the recognition and treatment of ailments which can and should be given early, simple treatment in the village. Thirdly, the course of training is being reduced to two years, following a period of probationary "cadet" service in the field with the staff of the Principal Medical Officer of Health during which time the would-be health assistant is assessed as regards his reliability and general suitability for the job. Training continues to be centred at Domboshawa, which is becoming a Community Development Training Centre.

MEDICAL ASSISTANTS

Training of medical assistants continues in mine and mission hospitals. It is important to define the future role of these very valuable personnel. Hitherto they have been found in all grades of hospitals from central hospitals downwards. In such units where medical staff exist, the talents and skills which the medical assistant acquires during his training, are to some extent wasted, because they are (usually) better done by the doctor. The doctor, especially he who undertakes surgery to any degree, needs in the main, trained nurses rather than medical assistants. It is quite wrong to look upon the medical assistant as a kind of inferior male nurse. His training is, or should be, quite different, and should be designed in breadth rather than depth. His role should be to recognize and give timely treatment in minor disease in order to prevent major illness, and to recognize and refer to medical care more serious conditions. Thus the place of the medical assistant is not in the central, general or large district hospital, where he or she should be gradually replaced by nurses, but in the rural hospital or simply in the community where, like the health assistant, he can provide a useful service on a domiciliary "general practitioner" basis from his own home. To be fully effective in this role, the medical assistant should, on his part, have more instruction in preventive measures and health education, and plans are afoot for revision courses to provide this.

The medical assistant and the health assistant (perhaps one day there will be no distinction), will together provide the "health infrastructure" which must be the basis of the development of rural health services and essential to the implementation of programmes of malaria, leprosy, tuberculosis, malnutrition and blindness eradication.

MEDICAL STORES

Tabulated on page 55 are figures relating to the work done during 1964; corresponding figures for 1963 are shown in brackets.

Location of store	Direct purchases	Transfer from other stores	Total	Sales to health institutions	Other	Total	Issue vouchers processed
Salisbury . .	£387,558 (£390,116)	£433 (£9,276)	£387,991 (£399,392)	£425,826 (£425,725)	£40,102 £(41,768)	£465,928 (£467,493)	19,384 (18,156)
Fort Victoria .	£110 (£120)	£41,579 (£30,123)	£41,689 (£30,243)	£39,723 (£30,592)	£433 (£28)	£ 40,156 (£30,620)	2,156 (1,808)
TOTAL . .	£387,668 (£390,226)	£42,012 (£39,399)	£429,680 (£429,635)	£465,549 (£456,317)	£40,535 (£41,796)	£506,084 (£498,113)	21,540 (19,964)

After the start of the financial year 1964-65, during which funds were to be severely restricted, a scheme was introduced to save expenditure on drugs and sundries by the European Central hospitals for supply to paying patients.

The scheme was implemented initially in Salisbury Central Hospital. In essence it involves sales by Medical Stores on a retail trading basis of drugs and sundries direct to patients in the hospital, through the hospital dispensary. After some teething troubles, the scheme got under way and is successful. Patients have, of course, the option of purchasing their requirements from their own chemists.

DANGEROUS DRUGS

Licences for the import of dangerous drugs were issued numbering 88, and 92 licences issued for the export of dangerous drugs. The large increase in the number of export licences, from three in 1963 to 92 in 1964, represented supplies to Malawi and Zambia which, during Federation, were internal transactions and not subject to import/export control.

The quantities imported are given below in grammes of base, the quantities exported are shown in brackets. For comparative purposes the figures for the previous year are shown and in the last column, the quantities of dangerous drugs consumed during 1964.

Drugs	1964 (*Grms.*)		1963 (*Grms.*)	*Consumed in* 1964
Cocaine	623 Grms.	(781 Grms.)	21,157 Grms.	615 Grms.
Codeine	140,608 Grms.	(54 Grms.)	110,267 Grms.	144,224 Grms.
Dextromoramide (Palfium)	—	(1 Grm.)	20 Grms.	1 Grm.
Diethylthiambutene (Themalon)	128 Grms.	(2 Grms.)	64 Grms.	50 Grms.
Dipipanone (Wellconal)	114 Grms.	—	41 Grms.	91 Grms.
Ethylmorphine	—		74 Grms.	39 Grms.
Levorphanol (Dromoran)	3 Grms.	(1 Grm.)	8 Grms.	5 Grms.
Methadone (Physeptone)	115 Grms.	(30 Grms.)	134 Grms.	98 Grms.
Morphine, anhydrous	4,125 Grms.	(164 Grms.)	1,306 Grms.	4,966 Grms.
Opium preparations	28,576 Grms.	(333 Grms.)	79,537 Grms. (25,000)	57,305 Grms.
Pethidine	14,353 Grms.	(6,260 Grms.)	13,798 Grms. (270)	9,486 Grms.
Pholcodine	1,000 Grms.	—	1,250 Grms.	640 Grms.
Phenadoxone	—	—	—	2 Grms.
Propoxyphene	—	—	10,252 Grms.	—

ADDICTION TO AND MISUSE OF DANGEROUS DRUGS

Cannabis

There were 830 convictions for the illegal possession, sale or cultivation of Indian hemp, compared with 1,436 in 1963, the majority of whom were African males in the 20 - 34 age group. The number of European convictions was practically identical to those in 1963, and the pattern of fines and sentences remained the same, ranging from 10s. to £100 and from seven days to four years. Juveniles, of whom there were 51, received cuts with a light cane.

Manufactured Drugs

No new addicts were reported, and those already registered continued to be controlled in their consumption.

WORLD HEALTH ORGANISATION

In March, 1964, Southern Rhodesia resumed its seat as an associate member of the World Health Organisation—a seat which it had occupied prior to 1953, but which had been, as it turned out, "on loan" to the Federation of Rhodesia and Nyasaland during its existence.

Since then relationships with the Secretariat, the Regional Headquarters and the specialist departments of the Organisation have been very cordial and Rhodesia has benefited thereby. Apart from the agreement reached and signed in respect of a Malaria "pre-eradication" programme, we have enjoyed several visits from the World Health Organisation bilharzia advisory team, from a special investigational team testing intradermal diagnostic techniques, and we have had a very fair share of fellowship opportunities, with more to come.

In turn, I think it can be said, with pride, that the organization can find in Rhodesia reliable information with regard to many of the problems which are of importance to the health of Africa and elsewhere.

VOLUNTARY ORGANIZATIONS

The Ministry keeps a close liaison with a number of voluntary organizations active in certain aspects of health work, and gives assistance to several of these. Some of these organizations, notably those concerned with the physically handicapped, are finding difficulty in maintaining the excellent services they have given in the past, because sources of generous donations have recently dried up. An investigation of the staffing functions and administration of some of these worthy endeavours is to be undertaken by a Ministry team to ascertain whether assistance can be given on a more generous and more rational basis than the somewhat arbitrary grants given in the past.

The Southern Rhodesia Red Cross, which has pioneered many useful ventures, embarked on a new and interesting project during the year—the training and placement in villages in a tribal trust area near Salisbury, of a number of African women who are now providing simple clinic services from improvised premises. The training is basic and will require repetition and revision, but the women are supplying a felt need and are undertaking some preventive measures as well as simple treatments. Initially Red Cross supervised the work, supplied the materials and paid the women a "uniform allowance". The ultimate intention is, however,

that the area council should take over responsibility for all but technical supervision. When this is so the Ministry can look on this as a community effort and assist in an appropriate manner.

The Rhodesia Association for the Prevention of Tuberculosis continued to operate its treatment centres in Bulawayo and Gwelo during the year. In this and other ways this voluntary organization has contributed greatly to a situation in which tuberculosis appears to be coming under control in urban areas. Ways and means must be found for the full participation by R.A.P.T. in the continuing campaign in rural areas. After negotiation the organization agreed to assist the Ministry in redistributing the funds available for tuberculosis programme by accepting *per capita* payments for patients in its units at a slightly lower rate than heretofore. For this and other co-operation the Ministry is grateful.

The Council for the Blind continues its good work in Matabeleland and Midlands in creating a blind register and bringing timely preventive treatment to children and others who have eye infections which might be made much worse by neglect or worse still by ngangas' remedies. The work of the field staff of this organization could, I think, be broadened to embrace the treatment of other minor conditions found in the course of their visits to schools. If this were done, it would fit in well with the general concept of health services indicated above.

Finally, as an epilogue to this report for which, lengthy though it be, I make no apology, I quote certain extracts from the reports of hospitals, provinces and districts:

Concession

"Road accidents in this area are fairly numerous. At one railway crossing near Glendale two fatal accidents occurred. In one case a bus was involved killing two, and in the other accident a sedan car collided with the train and two Europeans lost their lives."

Gwelo

The Medical Superintendent, Gwelo, makes the following remarks concerning three of his African medical assistants:

"These men were left in charge of their hospitals without a permanent Government medical officer to direct them. Practically they are called on to discharge the duties of a junior medical officer. They produced an effort entirely praiseworthy, behaving with responsibility and care in the best traditions of our profession."

Marandellas

"Having to pay has made the African think before presenting himself at the hospital, and particularly in the Out-patient Department, has helped to weed out the futile and not necessarily sick case, thereby allowing the doctor a better opportunity to examine and treat patients who really need attention.

Kwashiorkor.—This disease is one of the main killers of African children during the early years of life. About as many cases originate on farms as appear from the reserves. The results following treatment are still very disappointing and so many retrogress following their return home.

Peptic Ulceration.—Peptic ulceration is making its appearance amongst Africans living in Marandellas Township area. Symptoms of epigastric pain are not to be ignored these days as, on a number of occasions, barium meal X-rays have revealed the presence of peptic ulcers. Three gastro-enterostomies were performed on account of ulcers."

Enkeldoorn

"Gastro enteritis, directly attributable to poor conditions in the kraal with its frequent companion kwashiorkor, is still the main killer in infants and small children, but much is being done to try to educate the local populace.

The idea of child welfare clinics by the P.M.O.H., Gwelo, has been introduced into each of the rural hospitals in this group, and it is gratifying to see the results so far. The mothers are flocking to the lectures."

Umvuma

"Fifty cases of intestinal amoebiasis and eight of liver abscess were treated. Most of these came from Wunyani Reserve, and 24 were in children of three years and under. One baby of four months old died of liver abscess."

Rusape

"Colloid goitre is extremely common in this district and the prophylactic aspect deserves some attention."

Gwanda

"Although there are dramatic moments in every hospital from time to time, the most important part of the work consists of performing the routine every-day tasks thoroughly and conscientiously—whether it is the giving of injections, using a typewriter or cleaning the windows. In the team which runs a hospital everyone's job is important, and I am glad to be able to report that in this hospital the team is working well."

Shabani

"*Gastro-intestinal disease and Gastro enteritis.*—On the whole this is the biggest in both the in- and out-patient group, and more or less often accompanies and complicates whooping cough and measles in children, terminating the lives of most of the under-nourished and many of the better-nourished children with acute dehydration. A great number of these children, mainly infants, attend Shabani Health Centre and Lundi Rural Hospital in desperate state, having been ill sometimes for more than three days and surviving only a few hours after admission."

Kariba

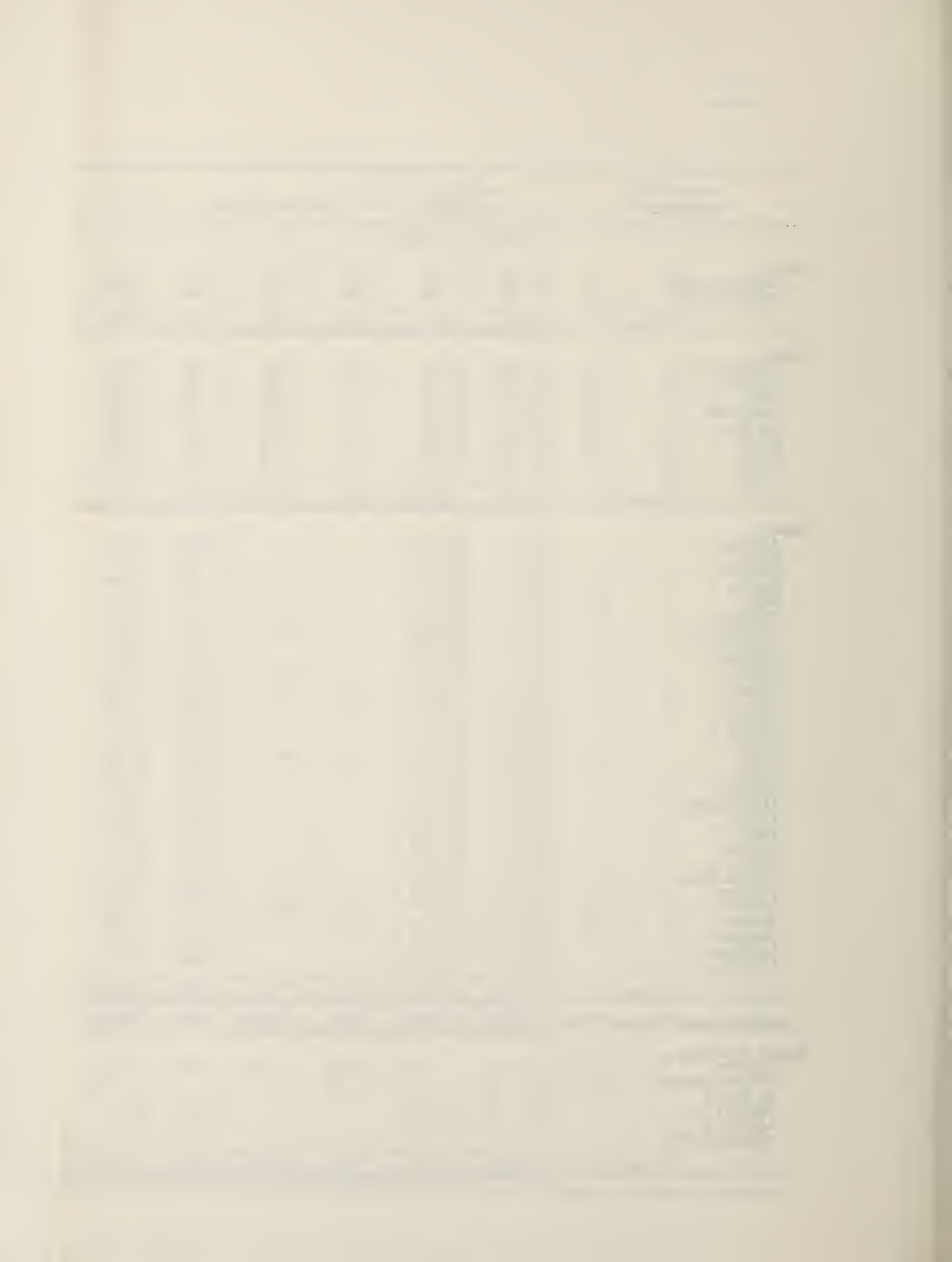
"*Trypanosomiasis.*—Two cases came from Camp B—Controlled Hunting Area, below the Gorge, and a number of other cases from this area were treated elsewhere. Four cases occurred in Nyamunga Fishing Camp in the Gatshe-Gatshe area, and one occurred early in the year in the Sanyati area. The influx of tsetse fly into Kariba during the dry weather was the worst for many years. About 75 dogs were treated at the hospital, with positive blood slides, and there were seven known deaths. With the advent of the rains the tsetse flies have dispersed."

With my sincere thanks for the loyal support of all in the service during the year, here endeth the first report of the Ministry of Health of Rhodesia.

STAFFING, BEDS AND PATIENTS, GOVERNMENT HOSPITALS

1st January to 31st December, 1964

Hospital Centre	Number of Nursing Staff		Number of Beds			Number of Admissions				In-patient Daily Average			Number of In-patient Units Maintained				Average Stay in Hospital in Days			Deaths				Out-patient Cases				Out-patient Attendances				Bed Occupancy Rate (per cent.)		
	Qualified	Auxiliary	E	C	A	E	C	A	Total	E	C	A	E	C	A	Total	E	C	A	E	C	A	Total	E	C	A	Total	E	C	A	Total	E	C	A
CENTRAL																																	
Bulawayo Group	519	64	279	51	672	7,790	1,301	23,044	32,135	194·7	29·8	652·2	71,272	10,908	238,733	320,913	9·1	8·3	10·3	225	30	1,067	1,322	2,349	1,036	122,827	126,212	12,820	1,178	307,491	321,489	69·7	58·4	97·0
Salisbury Group	637	61	369	66	840	10,209	1,178	25,206	36,593	274·7	30·7	820·6	100,554	11,270	300,364	412,188	9·8	9·5	11·9	264	23	1,696	1,983	45,396	2,180	180,359	227,935	55,230	2,922	405,423	463,575	74·4	46·5	97·6
TOTAL	1,156	125	648	117	1,512	17,999	2,479	48,250	68,728	469·4	60·5	147·2	171,826	22,178	539,097	733,101	9·5	8·9	11·1	489	53	2,763	3,305	47,745	3,216	303,186	354,147	68,050	4,100	712,914	785,064	72·4	51·7	97·3
GENERAL																																	
Fort Victoria	16	14	27	7	60	534	87	3,295	3,916	6·9	1·2	72·4	2,547	443	26,530	29,520	4·7	5·0	8·0	9	1	197	207	1,900	199	8,884	10,983	2,308	406	27,877	30,591	25·5	17·1	120·6
Gatooma	28	33	48	12	229	715	72	6,350	7,137	13·4	1·7	304·2	4,929	638	111,369	116,936	6·8	8·8	17·5	10	2	347	359	1,559	133	20,560	22,252	1,914	206	52,617	54,737	27·9	14·1	132·8
Gwelo	40	22	83	14	72	1,785	185	7,216	9,186	32·6	3·8	140·4	11,955	1,399	51,422	64,776	6·6	7·5	7·1	34	6	219	259	6,099	182	20,451	26,732	7,193	193	38,377	45,763	39·2	27·1	195·0
Marandellas	9	17	13	—	104	339	—	6,464	6,803	4·8	—	186·8	1,758	—	68,388	70,146	5·1	—	10·5	4	—	230	234	2,005	—	21,259	23,264	2,167	—	46,319	48,486	36·9	—	179·6
Que Que	19	17	28	12	89	1,565	87	3,832	4,984	15·7	1·3	69·0	5,780	477	25,284	31,541	5·4	5·4	6·5	10	3	205	218	1,357	106	30,532	31,995	1,438	176	76,347	77,961	56·0	10·8	77·5
Rusape	15	27	12	4	159	263	22	6,428	6,713	5·7	·28	236·5	2,118	106	86 592	88,816	8·0	4·8	13·4	8	2	207	217	902	183	31,246	32,331	1,047	220	65,944	67,211	47·5	·7	148·7
Sinoia	15	14	23	5	76	602	57	4,553	5,212	9·4	1·1	111·2	3,460	422	40,711	44,593	5·7	7·4	8·9	9	1	265	275	1,881	35	25,617	27,533	2,074	45	53,955	56,074	40·8	22·0	146·3
Umtali	44	30	93	12	133	1,610	215	6,360	8,185	29·6	3·7	131·2	10,842	1,365	48,024	60,231	6·7	6·3	7·5	33	7	249	289	5,958	525	18,428	24,911	6,882	823	51,059	58,764	31·8	30·8	98·6
TOTAL	186	174	327	66	922	6,913	725	44,498	52,136	118·5	13·2	1,252·2	43,389	4,850	458,320	506,559	6·2	6·6	10·2	117	22	1,919	2,058	21,661	1,363	176,977	200,001	25,023	2,069	412,495	439,587	36·2	20·0	135·8
DISTRICT																																	
Antelope	—	10	—	—	168	—	—	3,505	3,505	—	—	119·5	—	—	43,757	43,757	—	—	12·4	—	—	50	50	—	—	5,327	5,327	—	—	11,779	11,779	—	—	71·1
Banket	—	4	—	—	51	—	—	4,584	4,584	—	—	91·7	—	—	33,587	33,587	—	—	7·3	—	—	161	161	—	—	15,028	15,028	—	—	29,677	29,677	—	—	179·8
Belingwe	—	6	—	—	45	—	—	2,087	2,087	—	—	124·4	—	—	45,540	45,540	—	—	21·8	—	—	75	75	—	—	3,588	3,588	—	—	9,616	9,616	—	—	276·4
Bindura	8	9	20	—	40	309	6	2,899	3,214	5·8	·071	50·6	2,145	26	18,528	20,699	6·9	4·3	6·3	4	—	143	147	1,584	7	19,524	21,115	1,791	8	33,484	35,283	29·0	—	126·5
Binga	—	6	—	—	56	—	—	3,839	3,839	—	—	85·0	—	—	31.143	31,143	—	—	8·1	—	—	11	11	—	—	5,551	5,551	—	—	7,700	7,700	—	—	151·7
Chipinga	8	9	14	—	68	274	—	1,937	2,211	4·2	—	62·3	1,543	—	22,812	24,355	5·6	—	11·7	6	—	78	84	773	3	5,121	5,897	978	3	9,443	10,424	30·0	—	91·6
Concession	—	12	—	—	65	—	—	3,669	3,669	—	—	143·6	—	—	52,585	52,585	—	—	14·3	—	—	41	41	—	—	12,318	12,318	—	—	26,172	26,172	—	—	220·9
Enkeldoorn	7	16	13	1	40	231	12	2,450	2,693	4·1	·084	66·6	1,514	31	24,385	25,930	6·5	2·5	9·9	—	1	104	105	377	6	10,783	11,166	428	12	23,295	23,735	31·5	·84	166·5
Essexvale	—	8	—	—	48	—	—	2,249	2,249	—	—	65·2	—	—	23,896	23,896	—	—	10·6	—	—	35	35	—	—	7,217	7,217	—	—	13,727	13,727	—	—	135·8
Filabusi	5	11	12	—	114	160	—	3,135	3,295	2·2	—	156·5	817	—	57,306	58,123	5·1	—	18·2	1	—	64	65	317	—	4,806	5,123	595	—	13,726	14,321	18·3	—	137·2
Gokwe	—	5	—	—	47	—	—	2,801	2,801	—	—	56·6	—	—	20,720	20,720	—	—	7·3	—	—	18	18	—	—	9,730	9,730	—	—	37,147	37,147	—	—	120·4
Gwanda	7	17	16	6	134	117	31	4,170	4,318	1·3	·90	131·3	508	331	48,061	48,900	4·3	10·6	11·5	1	—	121	122	1,306	266	11,012	12,584	1,657	380	40,185	42,222	8·1	15	97·9
Hartley	—	12	—	—	55	—	—	5,059	5,059	—	—	76·9	—	—	28,169	28,169	—	—	5·5	—	—	173	173	—	—	29,910	29,910	—	—	106,603	106,603	—	—	139·8
Inyanga	—	5	—	—	28	—	—	1,666	1,666	—	—	49·5	—	—	18,122	18,122	—	—	10·8	—	—	11	11	—	—	7,999	7,999	—	—	39,090	39,090	—	—	176·7
Inyati	—	6	—	—	42	—	—	2,600	2,600	—	—	70·9	—	—	25,953	25,953	—	—	9·9	—	—	53	53	—	—	4,674	4,674	—	—	12,133	12,133	—	—	168·8
Kariba	2	8	13	—	80	161	—	2,512	2,673	1·4	—	38·6	513	—	14,138	14,651	3·1	—	5·6	2	—	24	26	561	—	7,061	7,622	766	—	15,564	16,330	10·7	—	48·2
Karoi	—	7	—	—	76	—	—	5,859	5,859	—	—	85·2	—	—	31,197	31,197	—	—	5·3	—	—	130	130	—	—	29,430	29,430	—	—	153,949	153,949	—	—	112·1
Makumbi	—	6	—	—	64	—	—	2,886	2,886	—	—	67·8	—	—	24,815	24,815	—	—	8·5	—	—	24	24	—	—	14,779	14,779	—	—	62,834	62,834	—	—	105·9
Mount Darwin	—	3	—	—	51	—	—	4,267	4,267	—	—	78·4	—	—	28,709	28,709	—	—	6·7	—	—	35	35	—	—	21,971	21,971	—	—	38,699	38,699	—	—	153·7
Mrewa	—	11	—	—	62	—	—	3,635	3,635	—	—	85·1	—	—	31,148	31,148	—	—	8·5	—	—	36	36	—	—	27,228	27,228	—	—	49,260	49,260	—	—	137·2
Mtoko	—	14	—	—	108	—	—	3,988	3,988	—	—	139·9	—	—	51,224	51,224	—	—	12·8	—	—	56	56	—	—	12,829	12,829	—	—	27,102	27,102	—	—	129·5
Ndanga	—	25	—	—	287	—	—	4,972	4,972	—	—	261·8	—	—	95,848	95 848	—	—	19·2	—	—	101	101	—	—	5,914	5,914	—	—	23,086	23,086	—	—	91·2
Norton	—	5	—	—	47	—	—	1,795	1,795	—	—	35·0	—	—	12,834	12,834	—	—	7·1	—	—	59	59	—	—	17,779	17,779	—	—	34,519	34,519	—	—	74·4
Nyamandhlovu	—	7	—	—	49	—	—	1,884	1,884	—	—	52·8	—	—	19,349	19,349	—	—	10·2	—	—	29	29	—	—	5,039	5,039	—	—	12,277	12,277	—	—	107·7
Plumtree	—	8	—	—	80	—	—	1,652	1,652	—	—	62·6	—	—	22,926	22,926	—	—	13·8	—	—	37	37	—	—	10,396	10,396	—	—	23,119	23,119	—	—	78·2
Selukwe	7	10	13	—	102	138	20	5,107	5,265	3·9	·28	133·2	1,458	106	48,752	50,316	10·5	5·3	9·5	6	—	97	103	536	226	16,162	16,924	1,018	541	40,973	42,532	30·0	—	130·5
Shabani	12	—	23	8	—	388	24	—	412	5·7	·29	—	2,117	107	—	2,224	5·4	4·4	—	10	—	—	10	936	106	—	1,042	1,217	128	—	1,345	24·7	3·6	—
Shangani	—	4	—	—	40	—	—	1,335	1,335	—	—	39·1	—	—	14,340	14,340	—	—	10·7	—	—	21	21	—	—	6,860	6,860	—	—	10,894	10,894	—	—	97·7
Umvukwes	—	12	—	—	92	—	—	6,236	6,236	—	—	177·1	—	—	64,842	64,842	—	—	10·3	—	—	138	138	—	—	11,313	11,313	—	—	19,048	19,048	—	—	192·5
Umvuma	—	11	—	—	108	—	9	3,624	3,633	—	·1	123·9	—	45	45,364	45,409	—	5·0	12·5	—	—	63	63	—	20	8,913	8,933	—	52	24,071	24,123	—	—	114·7
TOTAL	56	267	124	15	2,247	1,778	102	96,402	98,282	29·0	1·7	2,732·3	10,615	646	1,000,050	1,011,311	5·9	6·3	10·3	30	1	1,988	2,019	6,390	634	348,262	355,286	8,450	1,124	949,172	958,746	23·3	11·3	121·5
CENTRAL/GENERAL/DISTRICT TOTAL	1,398	566	1,099	198	4,681	26,690	3,306	189,150	219,146	617·0	75·6	5,457·5	225,830	27,674	1,997,467	2,250,971	8·4	8·3	10·5	636	76	6,670	7,382	75,796	5,213	828,425	909,434	101,523	7,293	2,074,581	2,183,397	56·1	38·1	116·5
SPECIAL HOSPITALS																																	
Ingutsheni	77	123	189	50	525	153	18	833	1,004	210·5	34·6	945·2	77,052	12,683	345,978	435,713	303·6	70·4	415·3	38	1	88	127	—	—	—	—	—	—	—	—	111·3	69·2	180·0
Nervous Disorders	7	—	23	—	—	349	—	—	349	15·5	—	—	5,703	—	—	5,703	16·3	—	—	—	—	—	—	2,108	45	1	2,154	3,347	105	1	3,453	67·3	—	—
St. Francis	13	—	80	—	—	9	6	—	15	68·3	4·4	—	25,012	1,615	—	26,627	2,779·1	269·1	—	4	—	—	4	—	—	—	—	—	—	—	—	85·3	—	—
Martin T.B.	6	20	—	—	180	—	—	397	397	—	—	209·1	—	—	76,665	76,665	—	—	193·1	—	—	29	29	—	—	536	536	—	—	713	713	—	—	116·1
Mpilo T.B.	7	14	—	—	120	—	—	960	960	—	—	108·7	—	—	39,810	39,810	—	—	41·4	—	—	55	55	22	—	2,798	2,820	22	—	12,118	12,140	—	—	90·5
Ngomahuru T.B.	2	10	—	—	80	—	—	125	125	—	—	84·7	—	—	31,026	31,026	—	—	248·2	—	—	8	8	—	—	—	—	—	—	—	—	—	—	105·8
TOTAL	112	167	292	50	905	511	24	2,315	2,850	294·4	39·0	1,348·3	107,767	14,298	493,479	615,544	210·8	595·7	213·1	42	1	180	223	2,130	45	3,335	5,510	3,369	105	12,832	16,306	100·8	78·0	148·9



Hospital Centre	Number of Nursing Staff		Number of Beds			Number of Admissions				In-patient Daily Average			Number of In-patient Units Maintained				Average Stay in Hospital in Days			Deaths				Out-patient Cases				Out-patient Attendances				Bed Occupancy Rate (per cent.)		
	Qualified	Auxiliary	E	C	A	E	C	A	Total	E	C	A	E	C	A	Total	E	C	A	E	C	A	Total	E	C	A	Total	E	C	A	Total	E	C	A
RURAL																																		
Avoca	—	2	—	—	44	—	—	2,171	2,171	—	—	59·5	—	—	21,791	21,791	—	—	10·0	—	—	12	12	—	—	9,507	9,507	—	—	32,306	32,306	—	—	135·2
Beatrice	—	3	—	—	22	—	—	1,080	1,080	—	—	18·6	—	—	6,836	6,836	—	—	6·3	—	—	28	28	—	—	15,566	15,566	—	—	27,790	27,790	—	—	84·5
Bikita	—	6	—	—	183	—	—	6,227	6,227	—	—	197·9	—	—	72,414	72,414	—	—	11·6	—	—	16	16	—	—	6,859	6,859	—	—	25,799	25,799	—	—	108·1
Birchenough Bridge	—	4	—	—	34	—	—	2,651	2,651	—	—	53·3	—	—	19,512	19,512	—	—	7·3	—	—	17	17	—	—	10,590	10,590	—	—	24,112	24,112	—	—	156·7
Biri Wiri	—	4	—	—	48	—	—	631	631	—	—	59·1	—	—	21,664	21,664	—	—	34·3	—	—	10	10	—	—	3,574	3,574	—	—	11,911	11,911	—	—	123·1
Bumera	—	4	—	—	37	—	—	4,648	4,648	—	—	71·3	—	—	26,118	26,118	—	—	5·6	—	—	30	30	—	—	22,854	22,854	—	—	43,354	43,354	—	—	192·7
Chibi	—	4	—	—	31	—	—	5,289	5,289	—	—	185·5	—	—	67,900	67,900	—	—	12·8	—	—	15	15	—	—	12,248	12,248	—	—	30,380	30,380	—	—	59·8
Chichidza	—	6	—	—	123	—	—	4,740	4,740	—	—	107·5	—	—	39,353	39,353	—	—	8·3	—	—	21	21	—	—	9,919	9,919	—	—	24,086	24,086	—	—	87·3
Chidumas	—	2	—	—	90	—	—	2,206	2,206	—	—	59·8	—	—	21,912	21,912	—	—	9·9	—	—	10	10	—	—	2,002	2,002	—	—	5,374	5,374	—	—	66·4
Chikuku	—	2	—	—	123	—	—	5,394	5,394	—	—	132·5	—	—	48,514	48,514	—	—	8·9	—	—	19	19	—	—	7,135	7,135	—	—	26,558	26,558	—	—	107·7
Chikwakwa	—	3	—	—	22	—	—	542	542	—	—	119·2	—	—	4,364	4,364	—	—	8·0	—	—	12	12	—	—	16,197	16,197	—	—	30,192	30,192	—	—	541·8
Chilimanzi	—	3	—	—	43	—	—	1,272	1,272	—	—	35·0	—	—	12,824	12,824	—	—	10·0	—	—	12	12	—	—	3,633	3,633	—	—	10,347	10,347	—	—	81·3
Chingombe	—	10	—	—	123	—	—	2,223	2,223	—	—	49·0	—	—	17,935	17,935	—	—	8·0	—	—	10	10	—	—	9,819	9,819	—	—	23,665	23,665	—	—	39·8
Chinyika	—	4	—	—	43	—	—	2,305	2,305	—	—	53·4	—	—	19,546	19,546	—	—	8·4	—	—	18	18	—	—	10,569	10,569	—	—	31,080	31,080	—	—	124·1
Chitando	—	6	—	—	153	—	—	2,176	2,176	—	—	61·0	—	—	22,328	22,328	—	—	10·2	—	—	19	19	—	—	9,802	9,802	—	—	22,854	22,854	—	—	39·8
Dagamella	—	2	—	—	14	—	—	498	498	—	—	13·1	—	—	4,796	4,796	—	—	9·6	—	—	11	11	—	—	7,391	7,391	—	—	27,678	27,678	—	—	93·5
Darwendale	—	3	—	—	26	—	—	1,318	1,318	—	—	28·8	—	—	10,565	10,565	—	—	8·0	—	—	34	34	—	—	15,535	15,535	—	—	48,165	48,165	—	—	110·7
Dzwamabande	—	4	—	—	58	—	—	7,163	7,163	—	—	136·5	—	—	49,959	49,959	—	—	6·9	—	—	80	80	—	—	21,894	21,894	—	—	40,735	40,735	—	—	235·3
Gutu	—	6	—	—	56	—	—	3,021	3,021	—	—	51·4	—	—	18,829	18,829	—	—	6·2	—	—	17	17	—	—	15,246	15,246	—	—	47,199	47,199	—	—	91·7
Highfield	—	7	—	—	35	—	—	2,098	2,098	—	—	32·5	—	—	11,899	11,899	—	—	5·6	—	—	1	1	—	—	35,903	35,903	—	—	170,674	170,674	—	—	92·8
Jeka	—	3	—	—	22	—	—	1,479	1,479	—	—	38·8	—	—	14,216	14,216	—	—	9·6	—	—	69	69	—	—	15,735	15,735	—	—	40,325	40,325	—	—	176·3
Jena	—	4	—	—	38	—	—	3,029	3,029	—	—	64·8	—	—	23,747	23,747	—	—	7·8	—	—	16	16	—	—	6,794	6,794	—	—	16,592	16,592	—	—	170·5
Kezi	—	3	—	—	51	—	—	45	45	—	—	18·8	—	—	6,906	6,906	—	—	153·4	—	—	3	3	—	—	4,883	4,883	—	—	23,871	23,871	—	—	36·8
Lady Mary Baring	—	4	—	—	45	—	—	1,582	1,582	—	—	39·6	—	—	14,498	14,498	—	—	9·1	—	—	14	14	—	—	8,725	8,725	—	—	36,495	36,495	—	—	88·0
Lady Stanley	—	4	—	—	45	—	—	1,381	1,381	—	—	24·7	—	—	9,071	9,071	—	—	6·5	—	—	14	14	—	—	6,691	6,691	—	—	22,443	22,443	—	—	54·8
Loreto	—	6	—	—	52	—	—	1,701	1,701	—	—	31·0	—	—	11,351	11,351	—	—	6·6	—	—	19	19	—	—	10,248	10,248	—	—	29,751	29,751	—	—	59·6
Lukosi	—	2	—	—	45	—	—	1,241	1,241	—	—	59·3	—	—	21,729	21,729	—	—	17·5	—	—	10	10	—	—	5,150	5,150	—	—	38,024	38,024	—	—	131·7
Lundi	—	6	—	—	58	—	—	3,752	3,752	—	—	156·2	—	—	57,178	57,178	—	—	15·2	—	—	165	165	—	—	8,864	8,864	—	—	62,446	62,446	—	—	269·3
Luveve	—	4	—	—	32	—	—	1,503	1,503	—	—	23·1	—	—	8,478	8,478	—	—	5·6	—	—	7	7	—	—	37,383	37,383	—	—	125,967	125,967	—	—	72·1
Madziwa	—	3	—	—	62	—	—	3,754	3,754	—	—	88·4	—	—	32,364	32,364	—	—	8·6	—	—	21	21	—	—	10,287	10,287	—	—	21,637	21,637	—	—	142·5
Makoni	—	4	—	—	64	—	—	1,557	1,557	—	—	30·7	—	—	11,260	11,260	—	—	7·2	—	—	5	5	—	—	10,602	10,602	—	—	17,154	17,154	—	—	47·9
Makosa	—	4	—	—	51	—	—	2,816	2,816	—	—	67·9	—	—	24,882	24,882	—	—	8·8	—	—	18	18	—	—	18,050	18,050	—	—	34,856	34,856	—	—	133·1
Maranke	—	4	—	—	28	—	—	1,628	1,628	—	—	53·1	—	—	19,450	19,450	—	—	11·9	—	—	35	35	—	—	5,872	5,872	—	—	23,334	23,334	—	—	189·6
Matibi	—	5	—	—	24	—	—	4,371	4,371	—	—	154·3	—	—	56,508	56,508	—	—	12·9	—	—	35	35	—	—	7,518	7,518	—	—	18,388	18,388	—	—	642·9
Matobo	—	2	—	—	30	—	—	575	575	—	—	13·0	—	—	4,762	4,762	—	—	8·2	—	—	4	4	—	—	2,783	2,783	—	—	7,619	7,619	—	—	43·3
Miami	—	4	—	—	48	—	—	1,164	1,164	—	—	20·1	—	—	7,365	7,365	—	—	6·3	—	—	13	13	—	—	10,182	10,182	—	—	39,557	39,557	—	—	41·8
Mondoro	—	5	—	—	40	—	—	1,863	1,863	—	—	34·2	—	—	12,523	12,523	—	—	6·7	—	—	5	5	—	—	18,008	18,008	—	—	47,887	47,887	—	—	85·5
Narira	—	6	—	—	50	—	—	2,627	2,627	—	—	46·1	—	—	16,893	16,893	—	—	6·4	—	—	27	27	—	—	17,255	17,255	—	—	39,453	39,453	—	—	92·2
Nedewedzo	—	4	—	—	64	—	—	1,089	1,089	—	—	23·8	—	—	8,716	8,716	—	—	8·0	—	—	18	18	—	—	10,132	10,132	—	—	23,084	23,084	—	—	37·1
Nkai	—	4	—	—	60	—	—	2,017	2,017	—	—	32·4	—	—	11,864	11,864	—	—	5·8	—	—	32	32	—	—	7,984	7,984	—	—	20,875	20,875	—	—	54·0
Nyamazuwe	—	3	—	—	12	—	—	4,388	4,388	—	—	59·1	—	—	21,647	21,647	—	—	4·9	—	—	13	13	—	—	16,079	16,079	—	—	27,383	27,383	—	—	492·5
Nyanyadzi	—	3	—	—	34	—	—	1,760	1,760	—	—	37·9	—	—	13,895	13,895	—	—	7·8	—	—	11	11	—	—	11,977	11,977	—	—	31,946	31,946	—	—	111·4
Odzi	—	3	—	—	28	—	—	1,981	1,981	—	—	45·3	—	—	16,584	16,584	—	—	8·3	—	—	13	13	—	—	10,516	10,516	—	—	18,845	18,845	—	—	161·7
Raffingora	—	3	—	—	41	—	—	2,270	2,270	—	—	44·0	—	—	16,104	16,104	—	—	7·0	—	—	46	46	—	—	18,744	18,744	—	—	39,102	39,102	—	—	107·3
Range	—	4	—	—	16	—	—	956	956	—	—	24·5	—	—	9,001	9,001	—	—	9·4	—	—	3	3	—	—	4,198	4,198	—	—	12,475	12,475	—	—	153·1
Rosa	—	4	—	—	46	—	—	2,121	2,121	—	—	70·4	—	—	25,802	25,802	—	—	12·1	—	—	9	9	—	—	18,175	18,175	—	—	38,210	38,210	—	—	153·0
Sadza	—	4	—	—	15	—	—	1,645	1,645	—	—	26·4	—	—	9,663	9,663	—	—	5·8	—	—	39	39	—	—	25,353	25,353	—	—	76,569	76,569	—	—	176·2
Sangwe	—	7	—	—	183	—	—	2,039	2,039	—	—	63·5	—	—	23,261	23,261	—	—	11·4	—	—	6	6	—	—	5,342	5,342	—	—	11,207	11,207	—	—	34·6
Shamva	—	7	—	—	42	—	—	1,752	1,752	—	—	61·7	—	—	22,586	22,586	—	—	12·8	—	—	44	44	—	—	13,078	13,078	—	—	74,922	74,922	—	—	146·9
Shiota	—	7	—	—	43	—	—	2,605	2,605	—	—	47·4	—	—	17,358	17,358	—	—	6·6	—	—	25	25	—	—	32,476	32,476	—	—	96,185	96,185	—	—	110·2
Siabuwa	—	1	—	—	14	—	—	296	296	—	—	55·3	—	—	2,024	2,024	—	—	6·8	—	—	3	3	—	—	6,318	6,318	—	—	28,990	28,990	—	—	395·0
Sipepa	—	3	—	—	59	—	—	1,259	1,259	—	—	33·6	—	—	12,326	12,326	—	—	9·7	—	—	23	23	—	—	6,288	6,288	—	—	30,637	30,637	—	—	56·9
Sipolilo	—	5	—	—	43	—	—	3,275	3,275	—	—	85·9	—	—	31,464	31,464	—	—	9·6	—	—	64	64	—	—	14,653	14,653	—	—	46,499	46,499	—	—	199·7
Siyawarewa	—	6	—	—	153	—	—	5,112	5,112	—	—	127·8	—	—	46,799	46,799	—	—	9·1	—	—	18	18	—	—	5,784	5,784	—	—	14,566	14,566	—	—	83·5
Tjolotjo	—	5	—	—	58	—	—	3,102	3,102	—	—	63·9	—	—	23,389	23,389	—	—	7·5	—	—	18	18	—	—	9,401	9,401	—	—	30,570	30,570	—	—	110·1
Tsonzo	—	3	—	—	21	—	—	1,256	1,256	—	—	28·6	—	—	10,487	10,487	—	—	8·3	—	—	12	12	—	—	6,538	6,538	—	—	15,392	15,392	—	—	136·1
Umgesi	—	4	—	—	50	—	—	1,860	1,860	—	—	38·0	—	—	13,927	13,927	—	—	7·4	—	—	13	13	—	—	16,158	16,158	—	—	46,463	46,463	—	—	76·0
Urungwe	—	2	—	—	54	—	—	3,611	3,611	—	—	80·1	—	—	29,344	29,344	—	—	8·1	—	—	23	23	—	—	10,703	10,703	—	—	33,418	33,418	—	—	148·3
Wedza	—	5	—	—	33	—	—	1,800	1,800	—	—	45·9	—	—	16,810	16,810	—	—	9·3	—	—	16	16	—	—	16,404	16,404	—	—	31,820	31,820	—	—	139·0
Weya	—	4	—	—	44	—	—	1,610	1,610	—	—	33·1	—	—	12,147	12,147	—	—	7·5	—	—	12	12	—	—	10,779	10,779	—	—	17,886	17,886	—	—	75·2
Zwimba	—	7	—	—	46	—	—	3,415	3,415	—	—	75·5	—	—	27,651	27,651	—	—	8·0	—	—	33	33	—	—	20,312	20,312	—	—	32,239	32,239	—	—	164·1
TOTAL	—	256	—	—	3,252	—	—	144,940	144,940	—	—	3,538·4	—	—	1,295,089	1,295,089	—	—	8·9	—	—	1,367	1,367	—	—	748,665	748,665	—	—	2,149,341	2,149,341	—	—	108·8
HEALTH CENTRES																																		
Beitbridge	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9,144	—	—	—	27,315	—	—	—	—
Doma	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17,326	—	—	—	41,566	—	—	—	—
Gwaai West	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5,871	—	—	—	21,413	—	—	—	—
Gwelo N.V.S. (Senka)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,420	—	—	—	26,546	—	—	—	—
Macheke	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7,844	—	—	—	15,057	—	—	—	—
Melsetter	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	590	—	5,419	—	685	—	12,161	—	—	—	—
Nema	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12,796	—	—	—	26,380	—	—	—	—
Quaggas Hoek	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	29,519	—	—	—	96,246	—	—	—	—
Shabani	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	22,330	—	—	—	202,897	—	—	—	—
Victoria Falls	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8,334	—	—	—	18,168	—	—	—	—
Virginia	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10,270	—	—	—	30,826	—	—	—	—
TOTAL	—	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	590	—	132,273	—	685	—	518,575	—	—	—	—

MEDICAL MISSIONS STATISTICS FOR THE YEAR ENDING 31st DECEMBER, 1964

Missions Grouped by Denominations	Admissions			In-patient Units			Deaths			Out-patients		Staff (Resident)			Beds			
	T.B.	Other	Total	T.B.	Other	Total	T.B.	Other	Total	Cases	Treatments	Medical	Nursing	Auxiliary	Authorized for Grants T.B.	Authorized for Grants Other	Authorized for Grants Total	Total No. Available
American Board																		
Chikose	8	1,023	1,031	499	11,103	11,602	1	26	27	3,594	8,279	1	3	5	—	24	24	34
Mount Selinda	97	1,987	2,084	22,840	31,891	54,731	17	75	92	4,486	8,383	2	2	12	55	85	140	146
(2) TOTAL	105	3,010	3,115	23,339	42,994	66,333	18	101	119	8,080	16,662	3	5	17	55	109	164	180
Anglican																		
St. Augustine's	—	274	274	—	1,527	1,527	—	—	—	2,615	26,131	—	1	1	—	—	—	21
Bonda	60	140	200	16,831	47,179	64,010	8	35	43	14,433	30,953	1	4	9	65	123	188	188
St. Patrick's	52	1,485	1,537	11,181	16,829	28,010	6	25	31	9,687	39,615	1	1	8	36	50	86	86
St. Peter's (Mamdea)	—	477	477	—	39,999	39,999	—	6	6	5,764	32,844	—	1	2	—	4	4	9
(4) TOTAL	112	2,376	2,488	28,012	105,534	133,546	14	66	80	32,499	129,543	2	7	20	101	177	278	304
Brethren in Christ Church																		
Matopo	—	505	505	—	3,785	3,785	—	2	2	5,760	10,500	—	1	1	—	12	12	12
Mtshabezi	27	2,291	2,318	2,293	26,950	29,243	1	32	33	8,032	25,322	1	4	—	—	49	49	49
Phumula	—	1,312	1,312	—	10,367	10,367	—	14	14	3,698	6,824	—	—	1	—	4	4	4
Wanezi	—	908	908	—	9,100	9,100	—	11	11	3,479	10,357	—	1	1	—	15	15	15
(4) TOTAL	27	5,016	5,043	2,293	50,202	52,495	1	59	60	20,969	53,003	1	6	3	—	80	80	80
Church of Christ																		
Mashoko (1) TOTAL	90	2,628	2,718	10,401	30,459	40,860	10	65	75	4,493	31,479	1	—	—	30	81	111	111
Dutch Reformed Church																		
Gutu	48	3,056	3,104	—	—	31,308	—	73	73	7,145	41,485	1	3	5	—	98	98	98
Morgenster	195	3,428	3,623	32,147	40,720	72,867	18	123	141	7,156	36,514	1	4	14	72	94	166	166
(2) TOTAL	243	6,484	6,727	32,147	40,720	104,175	18	196	214	14,301	77,999	2	7	19	72	192	264	264
Elim Mission																		
Elim (Inyanga) (1) TOTAL	20	2,042	2,062	937	13,441	14,378	1	33	34	10,899	50,117	1	1	—	—	10	10	56
Evangelical Alliance																		
Gundersen–Horness	27	1,755	1,782	2,711	16,310	19,021	3	82	85	8,593	24,826	1	5	5	—	55	55	55
5 District Clinics	—	2,126	2,126	—	10,524	10,524	—	21	21	19,822	54,750	—	5	—	—	—	—	80
TOTAL	27	3,881	3,908	2,711	26,834	29,545	3	103	106	28,415	79,576	1	10	5	—	55	55	135
Free Methodist Church of N. America																		
Chikombedzi	37	659	696	3,797	11,359	15,156	7	14	21	3,707	44,723	1	2	2	20	6	26	26
Lundi	—	—	—	—	—	—	—	—	—	7,513	76,868	—	1	3	—	—	—	—
(2) TOTAL	37	659	696	3,797	11,359	15,156	7	14	21	11,220	121,591	1	3	5	20	6	26	26
Free Presbyterian Church of Scotland																		
Mbuma (1) TOTAL	14	768	782	140	8,520	8,660	—	22	22	6,865	18,550	—	3	5	—	4	4	30
London Missionary Society																		
Dombodema	3	513	516	69	5,215	5,284	—	8	8	8,110	10,638	—	1	2	—	5	5	14
Zinyangeni	—	237	237	—	1,586	1,586	—	13	13	8,187	21,822	—	1	2	—	—	—	12
(2) TOTAL	3	750	753	69	6,801	6,870	—	21	21	16,297	32,460	—	2	4	—	5	5	26
Methodist Episcopal																		
Mutambara	7	2,005	2,012	309	21,000	21,309	—	41	41	7,523	19,268	1	2	7	—	55	55	55
Nyaderi	217	3,239	3,456	21,558	39,186	60,744	24	201	225	10,258	172,316	1	9	11	66	78	144	178
Old Umtali	1	2,058	2,059	161	20,516	20,677	—	13	13	3,332	10,799	1	2	5	—	30	30	54
(3) TOTAL	225	7,302	7,527	22,028	80,702	102,730	24	255	279	21,113	202,383	3	13	23	66	163	229	287
Reformed Baptist Mission of Canada																		
Bethesda (1) TOTAL	—	1,412	1,412	—	20,944	20,944	—	28	28	3,262	9,689	1	3	11	—	33	33	33

Missions Grouped by Denominations	Admissions			In-patient Units			Deaths			Out-patients		Staff (Resident)			Beds			
															Authorized for Grants			Total No. Available
	T.B.	Other	Total	T.B.	Other	Total	T.B.	Other	Total	Cases	Treatments	Medical	Nursing	Auxiliary	T.B.	Other	Total	
Roman Catholic																		
All Souls' (Mtoko)	12	3,535	3,547	1,535	26,486	28,021	—	35	35	8	34	—	1	5	—	14	14	19
Berejena	1	766	767	—	7,420	7,420	1	22	23	3,393	20,356	—	1	1	—	26	26	26
Driefontein (T.B.)	403	507	403	115,661	—	115,661	31	—	31	—	—	1	8	4	300	—	300	300
Embakwe	—	293	293	—	4,394	4,394	—	8	8	11,124	33,660	—	—	2	—	1	1	28
Empandeni	—	—	507	—	4,320	4,320	—	5	5	3,158	16,528	—	1	—	—	12	12	12
Fatima	68	1,779	1,847	4,700	21,678	26,378	7	24	31	25,703	30,432	1	3	20	33	80	113	113
Gokomere	35	3,175	3,210	3,152	16,768	19,920	1	10	11	10,267	18,698	—	2	2	—	19	19	27
Holy Cross	—	1,046	1,046	—	12,300	12,300	—	12	12	1,854	9,947	—	1	—	—	9	9	40
Kana	3	1,180	1,183	—	8,396	8,396	—	15	15	9,004	34,870	—	2	1	—	26	26	38
Kariangwe	—	1,861	1,861	—	12,134	12,134	—	8	8	5,204	17,341	—	1	2	—	29	29	29
Mary Mount	2	1,385	1,387	87	11,152	11,239	—	34	34	3,737	21,500	—	—	—	—	30	30	35
Monte Cassino	—	975	975	—	7,591	7,591	—	15	15	10,588	20,473	—	—	1	—	15	15	15
Mount Melleray	50	1,775	1,825	314	17,874	18,188	2	7	9	26,972	302,064	—	1	1	—	36	36	36
Mount St. Mary's	—	896	896	—	7,157	7,157	—	—	—	5,617	30,000	—	3	1	—	26	26	26
Mukaro (re-opened July, 1963)	—	2,500	2,500	—	5,500	5,500	—	25	25	1,800	17,000	—	1	—	—	—	—	25
Muvonde (Driefontein)	—	2,065	2,065	—	21,500	21,500	—	78	78	1,870	4,470	1	2	5	—	15	15	100
Regina Coeli	—	1,976	1,976	—	28,678	28,678	—	56	56	3,301	6,951	1	3	1	—	62	62	68
Silviera	28	2,266	2,294	2,991	27,731	30,722	2	56	58	17,090	48,360	1	3	5	—	93	93	112
St. Anne's (Brunapeg)	59	2,381	2,440	4,262	18,687	22,949	1	57	58	14,250	22,123	1	2	3	—	30	30	90
St. Anthony's (Zaka)	—	7,308	7,308	—	16,895	16,895	—	75	75	4,562	29,416	—	1	2	—	—	—	50
St. Barbara's	—	496	496	—	6,841	6,841	—	7	7	6,345	16,405	—	—	—	—	29	29	21
St. Joseph's (Semokwe)	—	675	675	—	6,680	6,680	—	9	9	6,571	11,742	—	—	1	—	15	15	15
St. Luke's (Bubi)	91	4,273	4,364	9,020	48,880	57,900	1	53	54	34,772	45,683	1	2	6	—	100	100	128
St. Michael's	—	1,840	1,840	—	12,584	12,584	—	25	25	7,316	47,276	—	—	1	—	18	18	18
St. Paul's (Lupane)	65	2,711	2,776	1,118	28,858	29,976	4	38	42	14,620	28,127	1	3	5	—	68	68	68
St. Paul's (Musami)	35	2,318	2,353	1,050	23,404	24,454	2	30	32	20,980	89,310	—	2	6	—	75	75	155
St. Peter's (Sabi Valley)	—	331	331	—	1,761	1,761	—	12	12	17,680	17,680	—	1	2	—	—	—	—
St. Theresa's	61	4,016	4,077	5,181	61,789	66,970	—	49	49	9,378	16,947	1	6	5	11	114	125	150
Triashill	—	900	900	—	—	—	—	4	4	17,340	19,785	—	1	1	—	26	26	26
(29) TOTAL	913	55,229	56,142	149,071	467,458	616,529	52	769	821	294,504	977,178	9	51	83	344	968	1,312	1,770
Salvation Army																		
Howard Institute	—	2,866	2,866	—	25,619	25,619	—	52	52	6,598	22,379	1	3	6	—	50	50	50
Tshelanyemba . . * Not submitted.	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Usher Institute	1	297	298	32	1,580	1,612	—	1	1	7,260	31,845	—	1	3	—	5	5	5
(3) TOTAL	1	3,163	3,164	32	27,199	27,231	—	53	53	13,858	54,224	1	4	9	—	55	55	55
Seventh Day Adventist																		
Lower Gwelo (1) TOTAL	—	—	—	—	—	—	—	—	—	6,030	7,530	—	—	1	—	—	—	—
South African General Mission																		
Rusitu (1) TOTAL	—	705	705	—	6,585	6,585	—	11	11	6,566	17,093	—	1	1	—	14	14	22
Swedish Mission																		
Manama	—	2,923	2,923	—	73,139	73,139	—	53	53	3,117	Unknown	1	2	8	—	85	85	85
Masase	22	2,957	2,979	3,930	41,792	45,722	—	24	24	3,654	25,940	—	2	6	—	89	89	89
Mnene	87	3,401	3,488	12,702	68,901	81,603	8	132	140	743	3,757	1	4	16	20	172	192	192
Musume	7	4,139	4,146	150	59,992	60,142	—	41	41	3,319	29,428	—	2	7	—	33	33	65
(4) TOTAL	116	13,420	13,536	16,782	243,824	260,606	8	250	258	10,833	59,125	2	10	37	20	379	399	431
esleyan Methodist																		
Waddilove (1) TOTAL	—	1,071	1,071	—	6,158	6,158	—	22	22	5,882	12,203	—	1	2	—	22	22	22
(64) GRAND TOTAL	1,933	109,916	111,849	291,759	1,189,734	1,512,801	156	2,068	2,224	516,086	1,950,405	28	127	245	708	2,353	3,061	3,832
American Board (2)	105	3,010	3,115	23,339	42,994	66,333	18	101	119	8,080	16,662	3	5	17	55	109	164	180
Anglican (4)	112	2,376	2,488	28,012	105,534	133,546	14	66	80	32,499	129,543	2	7	20	101	177	278	304
Brethren in Christ Church (4)	27	5,016	5,043	2,293	50,202	52,495	1	59	60	20,969	53,003	1	6	3	—	80	80	80
Church of Christ (1)	90	2,628	2,718	10,401	30,459	40,860	10	65	75	4,493	31,479	1	—	—	30	81	111	111
Dutch Reformed Church (2)	243	6,484	6,727	32,147	40,720	104,175	18	196	214	14,301	77,999	2	7	19	72	192	264	264
Elim Mission (1)	20	2,042	2,062	937	13,441	14,378	1	33	34	10,899	50,117	1	1	—	—	10	10	56
Evangelical Alliance (2)	27	3,881	3,908	2,711	26,834	29,545	3	103	106	28,415	79,576	1	10	5	—	55	55	135
Free Methodist Church of N. America (2)	37	659	696	3,797	11,359	15,156	7	14	21	11,220	121,591	1	3	5	20	6	26	26
Free Presbyterian Church of Scotland (1)	14	768	782	140	8,520	8,660	—	22	22	6,865	18,550	—	3	5	—	4	4	30
London Missionary Society (2)	3	750	753	69	6,801	6,870	—	21	21	16,297	32,460	—	2	4	—	5	5	26
Methodist Episcopal (3)	225	7,302	7,527	22,028	80,702	102,730	24	255	279	21,113	202,383	3	13	23	66	163	229	287
Reformed Baptist Mission of Canada (1)	—	1,412	1,412	—	20,944	20,944	—	28	28	3,262	9,689	1	3	11	—	33	33	33
Roman Catholic (29)	913	55,229	56,142	149,071	467,458	616,529	52	769	821	294,504	977,178	9	51	83	344	968	1,312	1,770
Salvation Army (3)	1	3,163	3,164	32	27,199	27,231	—	53	53	13,858	54,224	1	4	9	—	55	55	55
Seventh Day Adventist (1)	—	—	—	—	—	—	—	—	—	6,030	7,530	—	—	1	—	—	—	—
South African General Mission (1)	—	705	705	—	6,585	6,585	—	11	11	6,566	17,093	—	1	1	—	14	14	22
Swedish Mission (4)	116	13,420	13,536	16,782	243,824	260,606	8	250	258	10,833	59,125	2	10	37	20	379	399	431
Wesleyan Methodist (1)	—	1,071	1,071	—	6,158	6,158	—	22	22	5,882	12,203	—	1	2	—	22	22	22
(64) GRAND TOTAL	1,933	109,916	111,849	291,759	1,189,734	1,512,801	156	2,068	2,224	516,086	1,950,405	28	127	245	708	2,353	3,061	3,832

Appendix IV

EXAMINATIONS AT GOVERNMENT LABORATORIES, 1964

1st January to 31st December, 1964

Laboratory	Parasit-ology	Bacteri-ology	Serology	Haemat-ology	Bio-chemistry	Pregnancy Tests	Histology	Medico-legal	Clinical Autopsies	Total
P.H. Lab., Salisbury . .	31,168	23,605	33,804	17,196	10,630	232	—	—	—	116,635
Harari Hospital Lab. .	52,778	22,165	468	58,635	50,854	193	—	—	—	185,093
P.H. Lab., Bulawayo . .	6,450	18,346	26,115	9,631	10,938	107	1,600	377	89	73,653
Mpilo Hospital Lab. . .	53,040	28,976	19,774	112,447	14,645	114	2,012	827	949	232,784
Hospital Lab., Gwelo. .	10,490	2,961	6,433	9,622	19,635	65	—	—	—	49,206
Hospital Lab., Umtali .	17,561	4,220	2,749	13,686	7,464	153	—	—	—	45,833
Forensic/Histology Lab., Salisbury.	—	—	—	—	—	—	3,702	1,005	314	5,021
Total . . .	171,487	100,273	89,343	221,217	114,166	864	7,314	2,209	1,352	708,225

COLOURED AND ASIAN SCHOOLS: FINDINGS OF MEDICAL INSPECTIONS

1st January to 31st December, 1964

Routine Medical Examinations in Standards	Group 0 K.G. 1	Group 1 K.G. 2 and Std. 1	Group 2 Stds. 2 and 3	Group 3 Stds. 4 and 5	Group 4 Forms 1 and 2	Group 5 Forms 3 and 4	Group 6 Forms 5 plus	Total
Children examined	875	632	326	636	263	227	46	3,005
Nutritional State: Satisfactory	595	375	315	504	248	219	44	2,300
Unsatisfactory	280	257	11	132	15	8	2	705
Skin Diseases	3	—	—	1	3	4	—	11
Scalp	3	—	—	3	—	1	—	7
Dental Defects	15	8	—	—	3	—	—	26
Ear, Nose and Throat:								
Ears—Wax, Otitis media, etc.	31	10	1	2	—	3	1	48
Defective hearing—slight	—	—	—	—	—	—	—	—
Defective hearing—marked	—	—	—	—	—	—	—	—
Nose	5	4	1	—	—	—	—	10
Throat (tonsils and adenoids)—								
(1) Removed previously	2	1	6	8	1	—	—	18
(2) Enlarged	34	18	6	20	3	1	1	83
(3) Removal advised	13	5	—	5	1	—	—	24
Speech Defects	1	—	—	—	—	—	—	1
Eyes—Squint	2	—	—	—	—	—	—	2
Other conditions	—	—	—	—	2	—	—	2
Vision (refractive defects)—(1) Observation	2	40	5	42	1	1	—	91
(2) Requiring glasses	—	9	5	20	4	3	2	43
(3) Having glasses	—	5	12	3	1	1	—	22
Other defects	—	—	—	—	—	—	—	—
Heart—Functional disorders	1	—	—	—	3	—	—	4
Organic disease—(1) Rheumatic	—	—	—	—	1	—	—	1
(2) Other	—	1	—	—	—	—	—	1
Lungs—Asthma	—	—	—	—	—	—	—	—
Bronchitis, etc.	2	1	1	—	—	—	—	4
Abdomen—Enlarged spleen	—	—	—	—	—	—	—	—
Other	—	1	—	1	—	—	—	2
Nervous System—Functional disorders	1	—	—	—	—	—	—	1
Results of poliomyelitis	—	—	—	—	—	—	—	—
Other organic disease	—	—	—	—	—	—	—	—
Posture Defects—Spinal	3	1	—	10	1	1	—	16
Spinal and flat feet	—	1	1	1	—	—	—	3
Flat feet	22	11	2	5	12	9	2	63
Deformities—Head, neck and arms	—	—	—	—	—	—	—	—
Spine and chest	—	—	—	—	—	—	—	—
Hips, legs and feet	5	4	—	5	—	—	—	14
Other Conditions	7	12	9	2	—	—	—	30
Tests for Urinary Bilharziasis—Tests done								1.711
Positive cases								188

EUROPEAN SCHOOLS: FINDINGS OF MEDICAL INSPECTIONS

1st January to 31st December, 1964

Routine Medical Examinations in Standards	Group 0 K.G. 1	Group 1 K.G. 2 and Std. 1	Group 2 Stds. 2 and 3	Group 3 Stds. 4 and 5	Group 4 Forms 1 and 2	Group 5 Forms 3 and 4	Group 6 Forms 5 plus	Total
Children examined	1,758	2,022	926	1,154	873	332	128	7,193
Nutritional State: Satisfactory	1,193	1,566	915	799	859	324	128	5,784
Unsatisfactory	565	456	11	355	14	8	—	1,409
Skin Diseases	7	6	2	1	8	3	3	30
Scalp	1	1	2	—	1	—	—	5
Dental Defects	67	42	41	13	6	4	4	177
Ear, Nose and Throat:								
Ears—Wax, Otitis media, etc.	17	37	18	15	6	2	1	96
Defective hearing—slight	1	4	1	1	—	—	—	7
Defective hearing—marked	—	—	—	2	—	—	—	2
Nose	6	9	3	4	7	—	1	30
Throat (tonsils and adenoids)—								
(1) Removed previously	36	131	127	107	180	11	8	600
(2) Enlarged	133	139	59	77	45	1	1	455
(3) Removal advised	30	21	10	11	5	—	—	77
Speech Defects	—	1	1	—	1	—	—	3
Eyes—Squint	5	8	7	2	2	1	—	25
Other conditions	—	1	—	—	—	—	—	1
Vision (refractive defects)—(1) Observation	3	84	19	117	48	18	161	450
(2) Requiring glasses	—	33	30	64	71	27	42	267
(3) Having glasses	8	25	24	105	55	36	105	358
Other defects	1	1	2	2	—	—	—	6
Heart—Functional disorders	2	6	2	3	5	—	—	18
Organic disease—(1) Rheumatic	1	2	—	1	—	—	—	4
(2) Other	—	5	—	1	—	—	—	6
Lungs—Asthma	2	1	1	2	1	—	—	8
Bronchitis, etc.	16	24	11	8	4	1	1	65
Abdomen—Enlarged spleen	1	1	—	—	—	—	—	2
Other	1	—	—	—	1	1	1	4
Nervous System—Functional disorders	—	—	—	—	—	—	—	—
Results of poliomyelitis	—	—	1	1	—	—	—	2
Other organic disease	1	—	—	—	—	—	—	1
Posture Defects—Spinal	23	44	35	36	33	4	3	178
Spinal and flat feet	2	11	15	21	19	2	1	71
Flat feet	65	99	71	93	44	78	13	463
Deformities—Head, neck and arms	—	—	—	—	—	1	—	1
Spine and chest	—	—	—	—	1	1	—	2
Hips, legs and feet	16	46	31	22	11	—	—	126
Other Conditions	6	4	3	—	—	—	—	13
Tests for Urinary Bilharziasis—Tests done								9,392
Positive cases								219

GOVERNMENT DENTAL SERVICE

Service	Northern Salisbury Centre	Western Bulawayo Centre	Midlands Gwelo Centre	Eastern Umtali Centre	Total
Schools					
Children examined	27,180	13,255	4,708	5,441	50,584
Children treated	1,261	592	475	382	2,710
Fillings					
Permanent teeth	1,624	292	635	261	2,812
Deciduous teeth	660	65	36	184	945
Silver nitrate	434	65	13	—	512
Dressings					
Permanent teeth	86	19	17	—	122
Deciduous	65	—	9	—	74
Extractions					
Permanent teeth	219	90	60	48	417
Deciduous teeth	514	330	106	295	1,245
Appliances	4	—	—	—	4
Dentures					
Dentures supplied	10	—	—	3	13
Dentures repaired	2	—	—	—	2
X-rays	27	12	10	—	49
Other Operations	142	40	19	20	221
B.S.A. Police					
Attendances	1,786	870	243	259	3,158
Examinations	625	414	93	131	1,263
Fillings	734	227	158	93	1,212
Dressings	94	93	19	—	206
Extractions	156	62	20	66	304
Dentures supplied	54	29	7	6	96
Dentures repaired	28	25	—	—	53
X-rays	170	105	33	—	308
Other operations	560	400	107	103	1,170
Prison Officers					
Attendances	58	38	1	5	102
Examinations	14	10	1	3	28
Fillings	26	2	—	3	31
Dressings	7	3	—	—	10
Extractions	7	26	—	1	34
Dentures supplied	5	9	—	—	14
Dentures repaired	3	1	—	—	4
X-rays	2	2	—	—	4
Other operations	28	34	—	1	63
Old Age Pensioners, Indigents and Others					
Attendances	2,029	737	217	115	3,098
Examinations	272	228	93	26	619
Fillings	147	53	55	11	266
Dressings	30	18	25	—	73
Extractions	494	734	120	39	1,387
Dentures supplied	250	165	28	31	474
Dentures repaired	68	78	5	1	152
X-rays	27	18	14	—	59
Other operations	793	797	85	92	1,767
African Hospital Patients					
Attendances	14,995	16,175	1,322	127	32,619
Extractions (O.P.D.)	14,058	14,946	1,595	117	30,716
Fractures treated	143	78	—	5	226
Appliances (including splints)	3	6	—	—	9
Other operations (including surgical extractions, arrest of haemorrhage, drainage of abcesses, etc.)	495	577	94	19	1,185

Appendix VI—(continued)

Service	Northern Salisbury Centre	Western Bulawayo Centre	Midlands Gwelo Centre	Eastern Umtali Centre	Total
Military					
Attendances	—	11	2	2	15
Examinations	—	9	2	2	13
Fillings	—	1	—	—	1
Extractions	—	2	2	—	4
Dressings	—	8	—	—	8
X-rays	—	1	—	—	1
Other operations	—	1	—	2	3
Ex-Nyasaland Officers and Dependants					
Attendances	11	14	—	—	25
Examinations	5	5	—	—	10
Fillings	9	4	—	—	13
Dressings	2	—	—	—	2
X-rays	—	3	—	—	3
Other operations	11	1	—	—	12
Student Nurses					
Attendances	202	245	—	—	447
Examinations	202	245	—	—	447